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CLINICAL NOTES ON COCILLANA IN DISEASES OF THE LUNGS.

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SOMEWHAT more than a year ago my attention was directed to cocillana, a newly discovered drug said to possess therapeutic properties analogous to ipecacuanha and to be worthy of trial in pulmonary affections. Scepticism regarding the virtues of so-called "promising" new remedies, and disinclination to essay their trial when having at hand drugs the efficiency of which experience had left no doubt, caused me to use it at first only occasionally and a trifle perfunctorily, without attempting, in the hurry of practice, to keep records of results, until a number of favorable ones induced me to begin its systematic trial. I felt then more inclined to do this, understanding that the supply of ipecac root, which had diminished greatly in the past few years, was in danger of total exhaustion, owing to the continued large demand having resulted in the destruction of the plant in accessible localities in the limited area of South America to which its growth is restricted.¹ In view of this, it seemed desirable that a substitute for ipecac be found. Whether we have such in cocillana I am unprepared to assert, not having had opportunity for the thorough clinical trial necessary to permit authoritative statement. I have, however, no doubt that as regards the sphere of influence of the two drugs on the respiratory organs the effects are not unlike, and the results obtained from cocillana convince me that it possesses therapeutic properties which render it even superior to ipecac in certain diseases of the air passages in which the latter is often used.

Cocillana is the bark of a tree—a species of *Guarea*, of the family *Meliaceæ*. Like its near relative, the Goanese Ipecac or *Naregamia alata*, of India, it is used at the place of growth as an emetic and purgative (very rarely the latter), and is poisonous as an irritant-narcotic in over-doses. It contains apparently an alkaloid. It acts locally upon the mucous membrane either when directly applied or when absorbed; in the latter case it is

quickly excreted through the mucous membrane, the upper portions of which are successively more active in the elimination. It is excreted very slightly through the skin.

Specimens from Eastern Bolivia were brought to this country by Dr. H. H. Rusby and were described by Dr. N. L. Britton, of Columbia College, as being a new genus of plants in the family *Anacardiaceæ*, under the name *Sycocarpus Rusbyi*. A subsequent study of better material caused him to withdraw this opinion and class the plant as above stated, in *Bulletin of the Torrey Botanical Club*, July, 1889, p. 189.

Histories were taken of forty cases in which cocillana was prescribed. These comprise 10 of acute, 1 of subacute, and 19 of chronic bronchitis; 5 of broncho-pneumonia, and 5 of phthisis. Nineteen of the forty failed to report after the first visit. These are not considered here, although I think it likely that some of the cases of bronchitis among them were benefited, if not cured, as sufficient of the drug was always given to last at least twelve days, and its effects in full doses seem usually to be exerted promptly. Of the 21 remaining, 5 were cases of acute and 11 of chronic bronchitis, 4 of broncho-pneumonia, and 1 of phthisis.

The shortest time that any of these were under treatment by cocillana was 6 days; the longest, 12 weeks; the average, 22 days. In many of the cases other drugs had been unsuccessfully tried when cocillana was begun; they were then discontinued and cocillana alone used, save in one or two instances in which a few doses of digitalis, chloral, or a laxative were given to meet a special indication.

The following are brief, selected histories from the twenty-one:

CASE IV. *Acute bronchitis*.—T. C., aged twenty-one; clerk. First seen July 19, 1888. Had had frequent and troublesome cough for about a week, induced by exposure. Cough was loose and expectoration easy. The lungs were full of large and small moist râles with a few scattered dry râles. There was vesiculo-bronchial breathing; no alteration in resonance. The breath was offensive and the bowels constipated. A purge was given the first night and concentrated tincture of cocillana was prescribed in half-teaspoonful doses, to be taken every three hours. He returned in four days stating cough was worse and that medicine nauseated him. Two days later he reported he was no better. Cocillana was discontinued.

CASE V. *Chronic bronchitis*.—H. M., aged fifty; carpenter. First seen July 30, 1888. Had had

¹ Notes on Ipecac and Cocillana. H. H. Rusby, M.D. Pharmaceutical Record.

winter cough for twenty years. Present cough had continued since the preceding winter. Expectoration was moderate in amount, mucous in character; no emaciation; no albumin or sugar in the urine; heart normal; no alteration in pulmonary resonance; râles in chest (their character omitted from the records). He was ordered a half-teaspoonful of concentrated tincture of cocillana every three hours. Reported in a week that cough occurred less often, expectoration had diminished in amount and was more easily raised. Ten days later he was no better; cough and expectoration were about the same. A week subsequently cocillana was discontinued, no decided improvement having resulted after the first few days.

CASE VII. *Chronic bronchitis*.—S. M., aged eleven; school-boy. Had had cough more or less constantly for five years when first seen on July 13, 1889. It was then very troublesome and moderately loose, with muco-purulent expectoration. He had night sweats and was emaciated. A physical examination showed dry and moist râles and harsh respiration without alteration in percussion resonance. It was directed that the chest be pustulated with a mixture of croton oil and sweet oil, and five grains of ammonium chloride in a half-drachm of compound licorice mixture were ordered to be taken every three hours. This was continued until August 1st, but very little improvement resulted. Fifteen minims of concentrated tincture of cocillana every three hours were then prescribed. On August 17th, when again seen, he was decidedly better. He felt stronger; night-sweats had disappeared; appetite had improved; cough was much less, and expectoration was more easily raised. On the 24th it was noted improvement had continued; râles had disappeared, though the breath sounds were still harsh. Sufficient cocillana was then given to last a month, in doses of fifteen minims four times daily. On September 24th, when last seen, all signs of bronchitis had disappeared.

CASE IX. *Chronic bronchitis*.—Mrs. M. T., aged twenty one; housework. First seen August 14, 1888. Had had cough for two years. It was tight, paroxysmal, very troublesome, and much worse at night. There was constipation. A physical examination of the chest showed no dulness; diffused râles, mostly sibilant and sonorous; heart normal. Cascara was prescribed for the constipation and concentrated tincture of cocillana was ordered, in fifteen minim doses, every three hours. On August 14th it was noted there was improvement; cough was less paroxysmal and less frequent; expectoration was easier. From this on, cocillana was continued in the same dose. She was seen every week or so until November 20th, when the paroxysmal cough had disappeared and râles could no longer be heard. Cocillana was then discontinued and the compound syrup of the hypophosphites substituted. She reported the following March that there had been no return of cough.

CASE XVIII. *Chronic bronchitis*.—D. K., aged fifty; clerk. First seen February 1, 1889. He had had winter cough for several years. The present attack had existed since spring. Cough was frequent

and somewhat loose. There were present chest pains; no fever; clearness on percussion; diffused, moist râles; normal heart. Ten grains of ammonium chloride in a drachm of compound licorice mixture were ordered to be taken every three hours, until February 7th, when, not having improved, a half-teaspoonful of concentrated tincture of cocillana, at the same interval, was substituted for this combination. On the 13th he was decidedly better; stated last medicine had "done miracles." The expectoration had lessened in amount within two days, was more easily raised, and cough occurred less frequently. A few scattered moist râles could still be heard. On the 16th these had disappeared and cough was only present infrequently. On the 23d he reported that cough had entirely ceased. Cocillana was then discontinued.

CASE XXI. *Chronic bronchitis*.—X., aged thirty-four, physician,¹ had had cough with muco-purulent expectoration for two and one-half months, when he began treatment with cocillana in April last. Had been in the hands of a brother practitioner, who had prescribed various remedies without benefit resulting. Cough had become so troublesome at night that it prevented himself and others from sleeping. Night-sweats and complete anorexia were present. The bronchitis seemed at its worst when cocillana was begun. Ten minims of the fluid extract were taken three times a day. The cough ameliorated much at the end of the first day, and a comfortable night was passed. During the second day he was caught in a heavy shower and thoroughly drenched, and remained in this condition an hour. As a result, a severe spell of coughing occurred on rising the following day. Cocillana was continued through that day, and in the evening cough had quite ceased and the lungs seemed as comfortable as they had ever been. By the sixth day of treatment, cough had entirely disappeared. A noticeable gain in strength was appreciable, no doubt due to the improvement in his general condition. Night-sweats had ceased and increase in appetite had been immediate and great. The latter was thought to be the direct effect of cocillana, as it appeared shortly after taking the first dose and seemed affected by each succeeding one. Cocillana was discontinued at the end of a week, he feeling well and there being no recurrence of cough. After several weeks of immunity, cough gradually returned, though not sufficient to cause any degree of annoyance except during one or two days when a fresh cold was caught. Believes that a regular and persistent use of the drug would have effected a cure.

CASE I. *Acute broncho-pneumonitis*.—J. C., aged forty; hod-carrier. First seen July 13, 1888. Had caught a heavy cold three weeks before. Cough had been quite constant since. It was somewhat tight; expectoration slight. There were constipation, anorexia, daily chilly sensations, slight fever and sweats. He was able to be about, though bodily weak. Dulness was present in small areas through the left lung. Scattered large and small dry, with a few moist, râles could be heard in both

¹ From notes furnished by himself.

lungs. He was directed to rub the chest with a mixture of croton oil and sweet oil, and fifteen minims of concentrated tincture of cocillana were ordered to be taken every three hours. On the 16th, he reported he felt improved. The cough had loosened in one and one-half days after beginning treatment. Expectoration was less in amount and more easily liberated. Constipation was relieved. The dose of cocillana was increased to a half-teaspoonful. On the 25th, the date of his last visit, he reported he felt much stronger and that cough had disappeared. I did not see him at this visit nor thereafter. As no examination of his chest was then made by the assistant in charge, I am unable to state if the areas of slight consolidation had cleared.

CASE XVI. *Chronic broncho-pneumonitis and plumbism.*—P. S., aged twenty-six; house-painter. First seen November 7, 1888. Cough had existed since the preceding summer. It was alternately tight and loose. Expectoration was scanty. When he first appeared for treatment cough was difficult and painful and there were rheumatoid pains in the chest and shoulder muscles and in the large joints. He had had occasional light attacks of lead colic. There were present cold feet, headache, palpitation of the heart on exertion, sweats, a blue line on the gums, no constipation. There was dulness posteriorly at the lower part of the right inter-scapular space. Dry râles were heard in both lungs. He was directed to pustulate the chest with diluted croton oil, and potassium iodide in a stimulating expectorant mixture was prescribed. Potassium or ammonium iodide, and, occasionally, ammonium carbonate, in an expectorant mixture, were afterward ordered and continued until November 24th. At that date he was much improved and discontinued treatment, not returning for inspection until January 15th. The dulness was then less than at first, but cough was very troublesome. A careful examination of his sputum for tubercle bacilli gave negative results. Concentrated tincture of cocillana was prescribed in half-teaspoonful doses, every three hours. He reported on January 23d that cough had disappeared in two days after beginning cocillana. The dulness posteriorly still persisted. Cocillana was continued. He has not been seen since.

Of the cases of acute bronchitis, Case IV. alone made more than two visits, so that a report on the use of cocillana in the remaining four is somewhat incomplete. It was noted that two (Cases X., XI.), at the date of the second visit, were improved; cough and expectoration had lessened. One of these stated that the expectoration, though less in quantity, was more easily raised. These cases were of average severity and had lasted two weeks. In both, the cough was somewhat tight. One of the remaining cases (Case XIV., seen in February) reported that he was not improved, several days after his supply of cocillana should have been exhausted. He admitted not taking it with regularity. His occupation, blacksmithing, had exposed him to much sudden changes in temperature. In this case there was present an acute pharyngitis, in addition to a pronounced

bronchitis of two weeks' duration. In the fifth case, which when first seen had lasted a week, there was no change after ten days' treatment under doses of fifteen drops of the tincture of cocillana. This quantity was afterward increased to a half-teaspoonful. As stated, the case was not again seen.

A more satisfactory report can be made on the cases of chronic bronchitis. Most of them were under observation for a longer period than the acute cases. When these appeared for treatment the average duration of the symptoms was thirteen months. The shortest period was two and one-half months; the longest, five years. Five of these cases were cured; three were decidedly and two moderately benefited. One (Case V.) seemed to mend at first, but the improvement was not maintained, so that cocillana was stopped. All of the five that were noted to be benefited but not cured, were doing well at their last visit, and the indications seemed to be that a cure would result if they continued treatment. It may be that some of these were cured and did not afterward report the fact, but of this there is no certainty.¹ Too great a press of work at that time prevented me from following the cases as closely as I desired.

All of the four cases of broncho-pneumonitis were improved as regards cough and expectoration, and two of them quite markedly. Histories of the latter two have been already related. One of the others, a lad of seventeen, who had had a broncho-pneumonitis of two weeks' duration, was cured by the ammonium salts, but suffered a relapse. There was a small area of dulness at the left base posteriorly when he re-presented himself for treatment. Cough was troublesome and expectoration difficult. Cocillana (concentrated tincture), in doses of fifteen minims every two hours, at first caused nausea, which, after a short time, disappeared. Cocillana was persevered in, but on the twenty-first day of treatment dulness at the left base persisted, though cough was much less troublesome and expectoration far easier than before this drug was begun.

The only case of phthisis in which cocillana was prescribed alone that afterward reported progress was not benefited. There was consolidation of the anterior and posterior apices on the left. Cough had been incessant for three weeks. There were night-sweats, loin pains, emaciation, and atonic dyspepsia. At first there seemed to be slight improvement, but on the twentieth day of treatment cough and night-sweats were as bad as before and the general condition had not ameliorated.

A conjoint analysis of the twenty-one cases shows that sixteen of them were improved while taking cocillana, and that five of the sixteen were cured; that these five were cases of chronic bronchitis, and

¹ A renewal was given to each of the five at their last visit.

that the symptoms which were most distinctly influenced were cough, expectoration, night-sweats, anorexia, and constipation.

In all of the sixteen in which cough was not removed it was lessened. Expectoration was diminished in amount in all of the sixteen in which it was not entirely checked, and in six of the sixteen in which expectoration was difficult before cocillana was begun it became much less so later under this drug. In at least seven the cough became looser as it diminished in severity and frequency. The lessening in cough and in the amount of expectoration usually occurred within the first week. Another of the twenty-one (Case V.), who reported early improvement in cough and diminution in amount of expectoration, which also was more easily raised, stated at a later visit that this amendment was not maintained, so that this case is not classed with the improved in the above analysis. Two of the twenty-one (Case IV. and that of phthisis) stated that cough was aggravated rather than improved by cocillana.

Night-sweats present in three of the sixteen, disappeared in two. Appetite was decidedly and early improved in three who complained of its loss when they first came under observation. In three of the twenty-one it was noted that the bowels were somewhat looser while cocillana was being taken, though no laxative had been administered. It was not supposed that this was due to any special action of the cocillana until my attention was very recently directed to it by Dr. Rusby, the discoverer of the drug, too late for inquiry to be instituted as to its frequency in others who had made no mention of it in specifying results of treatment. Two cases made complaint of nausea while taking the drug in moderately full doses at short intervals. In both, however, this effect was quite ephemeral, soon ceasing though the medicine was continued.

It results from the foregoing analysis that cocillana is serviceable in bronchial catarrh, especially the subacute and chronic forms, when accompanied by scanty or moderately profuse secretion, whether the cough be tight or loose. It seems to possess the power to render cough less frequent and difficult and the bronchial secretion less viscid and more easily expectorated while at the same time it diminishes it in amount.

Perhaps the best preparation of cocillana for administration is the fluid extract, because of the relative smallness of the dose: seven and one-half minims of it equal about half a fluid drachm of the concentrated tincture. The fluid extract is to be preferred to the tincture in cases of acute bronchitis, since the amount of alcohol contained in the latter is apt to aggravate the inflammatory condition. In cases of chronic bronchitis, broncho-pneumonitis, and the bronchitis intercurrent with phthisis, the tincture is not open to this objection. The dose of

the concentrated tincture I employed in most of the cases is, I am told, somewhat too small: an average dose equalling about three-fourths to one fluid drachm.

2620 NORTH FIFTH STREET, PHILADELPHIA,
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**THE CLIMATOLOGY OF HEMOPTYSIS IN
CHRONIC LUNG DISEASE FROM AN ETIOLOGICAL
AND THERAPEUTIC STANDPOINT.¹**

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In glancing over the field we are confronted by so many and varied influences of climate at work both in causing and preventing hemoptysis that the subject will be best considered by taking up each factor separately and discussing it, as to its bearings on the symptom under consideration, and then tabulating the result.

If the chronic lung disease is removed by climate, this, a mere symptom, is necessarily ended. We must be careful in our study not to magnify hemoptysis, which is, as we have called it, a mere symptom, into the prominence of a distinct disease. The great practical point for us is to consider the subject in such a way that an insight may be gained as to the best prospect of relief afforded by climate for our patient who suffers from hemoptysis.

We have all felt the want of a definite knowledge for the decision of a climate proper for a patient suffering from hemoptysis. Hemorrhage resulting in the sudden death of a citizen, away from home and relatives, may cause reproaches to be showered, perhaps deservedly, upon the medical adviser who has recommended a change of climate. A definite knowledge of this subject may avert such a catastrophe.

In glancing over the field certain points are suggested to us. First, I will give a brief summary of the more important causes of bleeding from the lungs in chronic pulmonary disease. We are liable to hemorrhages from the lungs caused:

1. By capillary congestion of the bronchial mucous membrane.
2. By congestion of the parenchyma of the lung.
3. From erosion of bloodvessels from the ulcerative process.
4. Predisposition from alteration of the blood, as in hæmatophilia.
5. Atmospheric influences.
6. Nervous influences.

The hemorrhage may be bronchial, capillary, arterial, or venous.

I will briefly enumerate the principal factors under the head of *climate* as we shall study it. It includes all the influences exerted on the atmosphere by the

¹ Read before the American Climatological Association, June 25, 1889.

geography, meteorology, geology, botany, and astronomy, whereby the human body is affected. The principal climatic conditions affecting hemoptysis are included under the following heads: heat, moisture, altitude, asepsis, rarefaction of air, etc., which will be separately considered, and in detail.

I will first take up the subject of *rarefied air*. It is usually a pure air, having no germs or malaria. An elevation of 16,000 feet takes off one-half of the air-pressure at the sea-level (fifteen pounds to the square inch). Any fraction of the above height has its corresponding effect on the surface pressure. The following experience of those connected with the Oroya Railroad, in South America, is given in *Bell's Climatology*, page 82:

"This withdrawal of pressure often occasions the most severe symptoms of vertigo, headache, nausea, and vomiting, all more or less alarming, and attended with profound prostration. The whole are attended with increased respiration and rapid action of the heart. Dr. Ward says some are affected with fearful nausea and vomiting, comparing it to the worst form of sea-sickness. Others suffer from severe frontal headache, palpitation of the heart, etc. From the violence of the heart's action it really seems at times as if it would burst the walls of the chest. Occasionally severe hemorrhage occurs from all the avenues of the body. The respirations are increased from three to five times a minute. Dr. Ward says he has counted forty-three respirations and 148 pulse in a minute at an elevation of only 9000 feet, and that the pulse is *always* increased in frequency but not in volume. A person who at the sea-level has a pulse of 75 per minute, would find it increased about ten beats at an altitude of 10,000 feet, and would experience ten additional beats for each 1000 feet of added altitude. The rule is that no one passes for the first time an altitude of 16,000 feet whose pulse does not mount to from 130 to 150 beats in a minute."

When a person rises rapidly in a balloon to a great height, blood sometimes oozes from the mucous membrane, owing to the withdrawal of the usual atmospheric pressure, and the increased pressure in the bloodvessels from increased heart action. This is the so-called "balloonist's hemorrhage." To illustrate more fully the effect of being suddenly brought into rarefied air found at a great elevation, I quote from *Bell's Climatology*, page 80:

"A most singular illustration of its effects was given me by Dr. Heath, who is the surgeon employed on one of the Peruvian railroads now building from Packasmayo to the Andes. While making this trip over the road with him, he informed me that the visible effects of this existing cause were quite common in his experience. He mentioned an incident he witnessed far up on the line of this road. He experienced one day as he approached a party of workmen on the road a severe and sudden pain in his side, causing him to 'double up.' He, however, managed to walk on, and one of the workmen hailed him to stop and see several men who were ill, and had been taken that instant with severe pains, etc. What was still more wonderful in his statement of coincidences, but which has since been vouched for by the others, was that at the same moment he felt this pain he saw two birds which were flying overhead fall to the ground and were picked up dead. The ordinary effects of *rarefied*

air are a paralysis of the cutaneous nerves, and redness of the skin from dilatation of the capillaries. This effect on man might, if exerted upon a bird, produce sufficient shock to cause death."

If the bloodvessels and tissues within the lungs are weakened by degenerative changes, or if the bloodvessels are weakened by the ulcerative process, trouble might ensue from the decreased air pressure *without*, especially as the increased action from the heart *within* would assist in producing a hemorrhage.

To show you that simple rarefaction of the air may produce hemorrhage in chronic lung disease, I will cite a case which bears upon this point. A patient with a history of chronic cough and dyspnoea for three years, upon examination of the chest, gave indication by the physical signs of consolidation and some softening. He had never had hemoptysis. At the Hospital of the University of Pennsylvania we had an apparatus for the purpose of treating patients with rarefied air. After breathing a few inspirations of rarefied air for the first time, an alarming hemorrhage took place, which continued for half an hour. No hemorrhage ever followed this.

Dr. Theodore Williams, in the *Lancet* of May 12, 1888, in his data of the analysis of 141 cases of phthisis treated at an altitude varying from 5000 to 9000 feet, concludes that the climate is useful in cases of hemorrhagic phthisis, and that hemoptysis is of rare occurrence at the mountain stations. In the discussion of the paper of Dr. Williams, it was stated that the effect of altitude was to lower arterial tension, and that this might explain the freedom from hemoptysis. When hemoptysis did occur, it was owing generally to too sudden arrival at great heights. The hemorrhage was then of the order known as "balloonist's." Under any circumstances it will be safer to elevate your patient slowly. Where the ascent is by the conveyance of rapid trains, you can direct him to stop at stations on the road, so as to prevent the danger occasioned by a sudden arrival at a great altitude.

If the effect of elevation is to cause a lowering of arterial tension, as stated by some authorities, this gradual elevation of the patient will allow this factor to come into play, thus saving him from the danger of balloonist's hemorrhage.

Rarefied air is almost always associated with a dry and pure condition.

Sea air or *tide-water air* is a condensed air, and opposed to a rarefied condition of air in its action on the human frame, for here we have the full pressure of fifteen pounds to the square inch. Associated with the pressure, there is at the seaside a condition which is very unfavorable to tubercular patients. Besides the increased air-pressure without, and the increased arterial tension within, we have a slowed heart. Sea air is almost always moist, and this, with the irritation of salt always in the air,

hastens the ulcerative process, and counterbalances the good effect of the denser air.

In syphilitic phthisis the denser air and the increased arterial pressure are, I believe, beneficial in a curative way, as shown in my paper read before this Society two years ago in Baltimore. Seaside air, like sea air, is more moist than inland air; even more so than that at mid-ocean; but it is more variable as to temperature than out at sea or an island at the same latitude. The blood pressure is less from the slowing of the heart's action, and the denser air gives support to the bloodvessels, and the weakened tissues and weakened bloodvessels. These two conditions increase the danger of hemorrhage.

Another favorable condition experienced by a patient first arriving at the seashore is a result of a calming influence generally exerted over the nervous system, by which the patient will sleep longer and better for several nights. This quiet condition would in itself tend to prevent a hemorrhage, but, again, the ulcerative process is also generally hastened, tending later on to more danger. The air of fresh-water lowlands is apt to be dangerous to a patient from the miasmatic influences which are often present as well as from the increased moisture.

Cold air. What is the effect of a low temperature upon the body? The tissues and bloodvessels contract, especially the capillaries, driving the blood from the periphery toward the centre, not, however, with sufficient force to cause a dangerous internal congestion. Cold tones up the tissues in contact with the air, bracing them for their work. It has a beneficial effect upon the appetite, and favors assimilation, strengthens the nervous system, imparting internal vigor, while the lungs are also able to resist the increased blood-pressure within the arteries, owing to the strengthening effect of the reparative action of lowered temperature.

Warm air. The effect of continued warm air is to cause a debilitated and relaxed condition of the tissues and bloodvessels, which would in itself rather tend to the exudation of blood from the diseased tissue of the lungs. The influence of the relaxed state of the system at large, would have a tendency to diminish the force of the heart, thereby slowing the circulation, and consequently decreasing the danger of hemorrhage.

Dry air desiccates the pulmonary tissues, hence less moisture not only favors the return to health of the tissues affected by chronic disease, thus preventing the flow of sanguineous fluid, but it has also the immediate effect of preventing the oozing of blood from the surface of the altered lung tissue. Dry air is usually aseptic and the messenger of health.

Moist air influences the tendency to hemoptysis by causing a moist condition of the tissues, macerating and liquefying them, and it thus unblocks the

bloodvessels, dilutes the blood, and makes it more fluid, all of which may cause the walls of the vessels to weaken, as well as a tendency to the breaking-down process in the lungs, causing a greater danger of hemorrhage. Moist air is usually the bearer of effluvia and miasma, which are detrimental to the health of the patient.

The air of an elevated region is usually an *aseptic air*. It purifies the blood, thus bracing up the system, favoring the healing process. This air is an anti-bacillary atmosphere, hence the healing process is assisted by the destruction of germs in the diseased lungs. An atmosphere of this kind is usually cold and dry, and aids in the arrest of decomposition. These factors all assist in causing an improved condition of the diseased tissue, which is the most favorable solution of the patient's case.

Home sickness (nostalgia) is one of the complications which sometimes attend a change of residence. It has a very depressing effect upon the mind and body, which may prove to be disastrous in a case with a tendency to pulmonary hemorrhage. To show the effect of depressing emotion on a case of hemoptysis, I will cite three cases that came under my observation.

Nervous influence may sometimes affect hemorrhages independent of other causes.

To illustrate the influence of the nervous system in producing hemoptysis as well as other hemorrhages I will first cite the case of a woman having a small phthisical area at the right apex, as shown by bronchial breathing, impaired resonance, progressive emaciation, and a slight cough, who was one day shocked by seeing a wagon draw up in front of her house. Supposing that it contained the body of her husband, she was immediately seized with a profuse hemorrhage, and died in a few moments. The corpse which had occasioned her alarm had been by mistake drawn up to the wrong door. It proved to be the body of a man who resided in the next house. In the autopsy it was seen that the lungs were merely indurated, the breaking-down process had not commenced.

To illustrate further the influence of the mind upon hemorrhage, I will cite the following case:

A child about twelve years of age, a patient of Dr. Ogden's, was suffering from typhoid fever, with profuse hemorrhages from the lungs, stomach, fauces, nose, mouth, bladder, and bowels. The amount of blood lost was sufficient, if it continued, to kill the patient in a few hours. We gave an unfavorable prognosis to the mother of the child. She went with tears in her eyes into the room where the child was lying. The child in a whisper said: "Did the doctor say I was going to die? Don't cry, mother, and I will get well." The blood in a short time began to flow less freely, and in about eight hours it stopped entirely.

The grief of the mother was a shock to the nervous system of the child, which, in my judgment, saved its life.

Here we have in one case an illustration of hemoptysis being caused by emotion, while, in the other two, of its being stopped by the same cause.

A woman with chronic phthisis was seized in the morning with a profuse hemorrhage from the lungs. In the latter part of the afternoon she was taken upstairs to her room, and a fire was kindled in a stove in which her son had previously concealed a quantity of gunpowder. An explosion ensued, destroying the stove. The greatest solicitude after the explosion was for the patient. But it was found that the bleeding had been summarily arrested by the shock of the explosion.

Homesickness will nullify the effect of any climate.

There are certain influences at work when a change of residence is made that are not enumerated in the foregoing list, which I think belong to climate, and as they may work to the advantage or disadvantage of a patient with a condition inclining to hemoptysis, I think them worthy of detail.

An out-door life is generally a life of exercise. The pure air favors repair, by improving the general condition, and is often a strong factor in a change of residence. Vigor is imparted to the system in general.

An in-door life is usually a life of quietude in a vitiated atmosphere which leads to a further degeneration of the diseased tissue, and is a cause of weakness. A feebleness of the system at large is engendered by such a life.

Sunshine. A patient living in a crowded city, shaded between walls, and with, perhaps, many cloudy days, is subjected to depressing influences. On removing a person so situated to a region with much sunshine, and to an out-door life, he will be benefited and greatly exhilarated by such a change. With such a change he will, of course, have a drier and purer air, which must tend to have a beneficial influence on the local condition. The general improvement incident to a change of residence is due to all the foregoing factors. All tend to strengthen the weakened tissues, and favor a cure of the existing cause.

Atmospheric influences. Aside from the usual climatic influences before enumerated, certain conditions seem to favor hemoptysis. I have noticed both in my private and hospital practice, several cases of hemoptysis developing on the same day. In two hospitals I have had from two to five cases develop, on the same day, under my care—a number greater than during the whole of the rest of the year—and these attacks lasting, perhaps, two or three days. They occurred in winter, in mild weather, and with a moist atmosphere. No epidemic of pneumonia or influenza followed this atmospheric

disposition to hemoptysis. Phthisical cases are generally the sufferers at these times. No disturbances in the temperature of the patient follow these attacks. I have known three years to pass without any such hemorrhagic epidemic, and have observed two in one year, about two months apart. I recall five epidemics of this kind. And now, if I have two or three cases in my private practice, I ask the resident physician of the hospital, upon arriving there, how many cases he has. The answer is, "I have one, two, or three cases." What is the cause of the foregoing tendency? It seems to be atmospheric, but the specific cause I cannot give. I merely call attention to this observation that others may arrive at a true solution.

Having considered the factors and climate that influence hemoptysis, I will tabulate them under two heads.

First, the preventative and curative, and second, the causative.

PREVENTATIVE AND CURATIVE ELEMENTS.

Rarefied air tends to prevent hemoptysis by arresting the ulcerative or other diseased processes, and also by lowering the arterial tension. This climatic condition probably greatly overbalances the unfavorable tendency of the increased heart action, and loss of support to the lungs from diminished air pressure.

Cold air contracts the tissues and bloodvessels, thus preventing a flow of blood when a tendency to hemoptysis exists. It is beneficial by its general invigorating effects to the system at large.

Dry air robs the diseased structure of its moisture, decreases the fluidity of the blood, and blocks up the bloodvessels, all favoring the arrest and prevention of bleeding.

Aseptic air. The purity of this variety of air favors repair and cure of the lung disease, and kills or dwarfs the action of the disease germ.

Out-door life, when not associated with too much exposure, exertion, or fatigue, is beneficial.

Sunshine is beneficial, inasmuch as it improves the general nutrition.

CAUSATIVE ELEMENTS.

Sea-level air, by its greater density, diminishes the tendency to hemoptysis, but the increased arterial tension, and the moisture which are usually present in such a locality more than counterbalance the beneficial effect of the support given by the air pressure.

Salt air has a bad effect on tubercular lung disease by hastening the breaking-down process. The effect is probably good in syphilitic lung troubles, and sometimes in simple chronic inflammatory lung affections (not tuberculous).

Moist air has a very deleterious effect, by hasten-

ing the ulcerative process, as well as by liquefying the blood and secretions, and macerating the diseased surface in the lungs, thus rendering the tendency to the oozing and flowing of blood more liable.

Warm air relaxes the tissues and bloodvessels and enervates and relaxes the system at large.

From the foregoing arguments we should conclude that each case should be carefully studied, in all its phases, before deciding upon a change of residence. On a high mountain (say from 5000 to 10,000 feet), a residence far removed from the seacoast, is best for a patient with a tendency to hemoptysis. At a location of this kind one would probably have not only a rarefied, but also a cold, dry, aseptic air, factors which would be most beneficial. Care should be taken that the elevation of the patient should be gradual and not too rapid, otherwise the early effects of a sudden elevation might be followed by unpleasant results. A case of syphilitic phthisis will probably be benefited by sea air, while a tubercular patient would in all probability be injured by such a residence.

FACTS AND SUPERSTITIONS CONCERNING PREGNANCY AND PARTURITION, AT SWATOW, CHINA.

By A. M. FIELDE, M.D.

NEARLY all the Chinese women maintain a sitting posture during labor and delivery. A few are unable thus to bring forth the child, and these are called "recliners."

The umbilical cord is never divided until after the emergence of the placenta, because it is supposed that this would cause the contents of the womb to rise and remain among the internal organs, causing speedy death. After the appearance of the placenta, the cord is tied by a thread, about one inch from the umbilicus; a loop is made by bringing the distal portion toward the body; a second knot is tied securely upon the first over the doubled cord, "to prevent the entrance of wind," and the cord is then cut near the second knot. The portion of the cord left with the placenta is not tied.

If there is much delay in the expulsion of the secundines, various methods are pursued in assisting the patient. The mother-in-law or midwife goes behind the house in which the patient lies, raps smartly with a carrying-pole on the wall, and shouts, "Is it out yet?" An assistant responds from inside the house, "It is out." This performance is repeated, with short intervals, until the desired result is effected.

Another method of hastening the expulsion of the afterbirth is to have the patient lean over a horizontal bar, supporting herself partially upon her hands. This sometimes starts the adherent placenta, but is discomforting to the attached infant.

Some midwives insert the hand and remove the placenta, but mothers greatly fear this operation. It is asserted that one woman had her liver pulled out by the attending midwife, and consequently died. Native male physicians are under no circumstances called in cases of childbirth.

A girl that is born face downward, or one that is guilty of micturition or defecation immediately after birth, is straightway smothered, because of a superstition that such a child will be injurious to its parents.

A pregnant woman is advised not to handle edged tools. If she does so, her offspring is likely to lack a finger or a toe, or to have a harelip or a split ear.

Two pregnant women will not sit together upon the same bench. As each woman hopes that her child is a male, and as it is thought that there may be an occult exchange of sexes between embryos that are brought into vicinage, it is considered wise to avoid the risk of having the supposed masculine tenant of the womb superseded by a female.

If a child has been touched by a pregnant woman, and sickens soon afterward, its mother winds a skein of silk, made up of threads of five colors, around a potato, and roasts the potato in the ashes. If the silk is burned during the process of roasting, it indicates that the ailment was not caused by the touch of the pregnant woman. But if the silk is not burned, as sometimes happens, then the mother of the injured child throws the potato over her house, and it is believed to produce a miscarriage in the woman who has caused the disease, while the sick child recovers.

Many men have purses made by women approaching confinement, hoping that the woman's plethoric condition will be mystically reproduced in the money-bag!

SWATOW, CHINA, April, 1889.

TREATMENT OTHER THAN CLIMATIC OF HEMOPTYSIS IN CHRONIC PULMONARY DISEASE.¹

By JAMES B. WALKER, M.D., PH.D.,
OF PHILADELPHIA.

IN considering the treatment of a symptom of even so grave a seeming as hemoptysis, the prognostic significance thereof is of much import. Is the occurrence of hemoptysis a grave indication? This query at once opens for consideration the various pathological conditions resulting in hemorrhage, and the response to it must be correspondingly varied. I take it for granted that we are united in considering hemorrhage from the lungs at times absolutely harmless and even remedial; and at others so serious as to demand the utmost efforts of

¹ Read before the American Climatological Association, June 25, 1889.

the physician in its arrest; and even at times, though happily rarely, so excessive as to produce a fatal issue before aid can be summoned.

Hemoptysis, early in phthisis, is, in the vast majority of cases, slight, and, unless long continued, calls for no medicinal interference. Hygienic measures usually suffice. These consist in placing the patient in a cool room, with light and loose covering, only sufficient to avoid a feeling of chilliness. His head and shoulders should be slightly elevated, except where syncope is threatened. During and immediately after the hemorrhage, rest of body should be enforced, the completeness of this rest being commensurate with the gravity of the hemorrhage or the dangers of a recurrence. It may necessitate as nearly absolute immobility of the entire body as is possible to obtain; the interdiction of speech; the use of the bed-pan and urinal for the ejecta, and the spoon or feeding-cup for the ingesta; and the muscles of attendants for all needful changes of position.

All mental and emotional excitement is to be subdued. The most important of these is fear, and, considering the gravity encircling in the popular mind, even a slight loss of blood from the lungs, it is not surprising that this should be. This is usually quieted easily by a calm and reassuring deportment of the physician, and is, of course, intensely accentuated by the slightest evidence of alarm or even anxiety from him. The bleeding organ should be especially placed at rest, and, in addition to the avoidance of speech, unnecessary coughing should be checked, usually requiring opiates in all cases of irritative cough, or where there is more than the slight effort necessary to remove the exuding blood.

The diet should be bland and digestible, small in quantity and, of course, nutritious. It should be given cool or cold. Milk, or, where acids are frequently repeated in the medication, the whey thereof, cold meat, teas, and ice. Water should be given sparingly, except where the hemorrhage is excessive, when it may be required more abundantly. So long ago as 1792, Davidson reported in the *Medical Facts and Observations*, published in London, two cases of hemoptysis cured (?) by total abstinence from liquids. Stimulants are to be avoided.

Attention to the various emunctories is important, especially the bowels, and slight saline laxatives are beneficial in even the mildest cases.

In many cases nothing further will be needed. In the graver forms, or in even slight attacks of patients naturally weak or debilitated by disease, more or even most decided efforts may be demanded, in addition to the purely hygienic. As nature is usually equal to the emergency, aided, unaided, or even when slightly hindered, a vast number of specifics have been vaunted. And it is equally true that as

at times she is powerless, more efficient aids have been searched for.

Measures which relieve the local engorgement deserve, perhaps, first consideration. Dry or moist heat or counter-irritants to the extremities; aconite or veratrum viride; free saline purgation; iced compresses or ice-bag, limited to the area overlying the bleeding point where discernible, and kept in place but a little while at a time but frequently repeated; heat to the spine; venesection—of, however, questionable utility in any case of hemoptysis now under discussion, viz., in chronic pulmonary disease; Dr. Müller's substitute for venesection, an elastic bandage around one extremity, allowing it to remain for six or eight minutes, and applying another to the other extremity before loosening the first, which latter must be done slowly, a method contraindicated where the pulse is weak and blood poor in quality; dry cupping in the interscapular or infra-clavicular regions; the popular remedy, a spoonful of salt, whose efficacy, according to Skoda, is due to the gastric or gastro-intestinal irritation induced, are some of the measures by which relief to the area of engorgement is attempted.

The induction of measures to occlude the bleeding orifice by aiding the occurrence of the clot, and by diminishing the orifice to be occluded, call for measures classed as hemostatic, most of which aid directly or indirectly both objects. The astringents are thought by most to be efficacious hemostatics, and are used by most practitioners either internally or topically in spray or vapor.

For internal use gallic acid or acetate of lead is employed. If gallic acid is chosen, it should be given in ten-grain doses every two, three, or four hours. If acetate of lead is used, it may be given in pill with opium extract, unless the latter is contraindicated, or, as the Drs. Williams recommend, in five-grain doses in a solution containing an excess of acetic acid every two, three, or four hours, with a magnesium sulphate draught every morning to avoid the gastro-intestinal effects of the remedy. The mineral acids, and especially the sulphuric, are held in high esteem by many on account of the combined astringent, refrigerant, and roborant effects. Sulphuric acid may be used with other astringents or hemostatic factors and add not a little to their efficiency. A class of remedies similar in the results obtained, and, according to many close observers, more efficacious, is the essential oils, especially of turpentine and erigeron. These may be robbed of their one objectionable feature, their disagreeableness, by administration in doses of five or ten drops in capsule or closed French pearl or globule, or the closed soft capsule of Parke, Davis & Co.; the ordinary bivalve capsule is not admissible. Excreted in part by the pulmonary mucous mem-

brane, the terebinthines are more certain to come in contact with the bleeding point or points, and, both rationally and by observation of many, they are more likely to arrest the hemorrhage, albeit their manner of doing so is not satisfactorily demonstrated, than are the astringents which depend for their local effect on the solution in the great volume of blood serum. Terebene may be substituted for the turpentine.

For topical application, alum is most vaunted; next to this a solution of iron perchloride and gallic acid; but, while these are usually chosen because they can be sprayed cold, I have seen the vapor of turpentine apparently promptly effective in a severe hemorrhage when these and other astringents had failed. It is stated that some of our North American Indians smoke Canada balsam mixed with their tobacco in cases of hemoptysis with apparent efficacy. Eucalyptus, matico, hamamelis, and a number of other astringent substances are used and, no doubt, useful; but it would seem desirable in most instances to depend on definite solutions of the active properties themselves than on more or less indefinite compounds, natural or artificial, containing them.

But of all the aids to nature in closing bleeding orifices, where aid is absolutely in demand, ergot must be given preference. This may be given by the mouth, but if prompt action is needed, should be administered hypodermatically, and repeated as often as the urgency of the case demands. If given by the mouth, it may be made more efficient by combining sulphuric acid, dilute or aromatic, repeated every four hours. Digitalis is frequently effective, and in weak hearts with lowered vascular tone it is strongly indicated. Its good effect is probably due chiefly to the contraction of the arterioles induced by it.

There are other plans of treatment which should, perhaps, be at least mentioned. The use of ipecac, so highly praised by Graves and Trousseau, administered to induce nausea, or even vomiting, is scarcely needed and is of doubtful advisability in the class of cases we are considering, especially when so many apparently less objectionable measures are at our disposal. Dr. Neale, in *The Medical Digest*, refers to the method in use by the Chinese and Malays in cases of hemoptysis. It consists in the administration of a half pint of the urine of a child. While this may be efficacious, it is not likely to be extensively adopted by civilized communities even as a household remedy.

If fever result, indicating local inflammation, active counter-irritation by blister or less violent agency; with quinine internally and the use of astringent or terebinthinate or antiseptic inhalations, should be resorted to. Rest should be enjoined in these cases until the fever subsides. But in the majority of cases enforced rest must be short-lived and

cease with its necessity. After the hemorrhage has been securely arrested this measure should cease, and the disease which has occasioned it must be combated by improved nutrition, which will demand a certain and, of course, a varying amount of bodily activity and a more liberal dietary.

Preparations of larch bark have been used and may be substituted for turpentine, which they resemble in composition and effect. Hamamelis has proven effective, according to Brunton, in cases where ergot and digitalis have failed, while in others it has failed and they have succeeded. It may be given by inhalation or internally.

The treatment of hemoptysis during the attack is, however, not so important as during the intervals. Every case of hemoptysis, at whatever time occurring, from the incipency to the stage of cavities, is of serious moment. As already stated, it is rarely of gravity in itself, but it is of gravity as indicating a pathological condition which makes a hemorrhage possible. As aneurisms are rare, save from direct violence to the artery, except where there exist defective vessels, so complete rupture and hemorrhage, as in hemoptysis, are perhaps always due to a diseased vessel. Notwithstanding the fact that the pulmonary capillaries have less extraneous support and are structurally most liable to rupture of any vessels in the entire vascular apparatus; yet, in the intensest engorgements to which as healthy vessels they are exposed in the first stage of acute croupous pneumonia, how rarely do we have a true hemorrhage. Believing that hemorrhage in incipient phthisis is due, in the vast majority of cases, to vascular deterioration from bacillary invasion, we should take our suggestions in the treatment of such from this fact—if such it be—and place our patients under more favorable hygienic or dietetic conditions than they have previously enjoyed, else there is little hope for a permanent improvement or for the prevention of repetitions of the hemoptysis. To change of climate I may add change of occupation or habits, which will render the already diseased lung less vulnerable to bacillary invasion.

I recall for illustration a very marked and interesting case which occurred under my observation some years ago.

The patient was a man of about eighteen years who had about as extensive an inheritance of vulnerability as can be imagined. His uncles and aunts, of whom there were several, had all but one died of phthisis, and this one has since died of it after dragging along a semi-existence for some years. Both parents had died of phthisis. I cannot recall the history of the previous generation.

Frank was a tall, slender and frail boy, and was employed in the counting-house of one of the largest dry goods stores in Philadelphia. This counting-house, with glass sashes surrounding it, some of which were always closed, stood back in the store

and was lighted with several gas-jets the whole day through. In this deoxygenated den he had spent his working days for some months, when one day, about fifteen years ago, in the spring of the year, without warning, he had a hemorrhage of the lungs. The right apex was slightly infiltrated, and under rest the hemorrhage ceased after a few days. Under directions he quit his occupation, went to light work in the vineyard of an uncle who lived on a hillside bordering on one of the lakes in central New York. Returned in the autumn greatly invigorated, without objective or subjective sign of pulmonary disease, and by living an out-door life has never had a recurrence.

This is but one instance of many in the experience of, perhaps, all of us, where vulnerability has been changed to invulnerability by improvement of the environment.

To summarize the treatment I would say: Hygienic measures are adequate for the arrest of most cases of hemoptysis occurring early in chronic pulmonary disease. They constitute much the most important part in the treatment of even grave cases. In ordinary cases, in addition thereto, sufficient doses of an opiate to quiet unnecessary cough will be all that is required.

For the severer attacks, or where their repetition gives even a slight hemorrhage a gravity it would not otherwise possess, we should administer either the peculiar hemostatics, turpentine, erigeron, tincture laricis, or others of this class; or astringents, preferably gallic acid or acetate of lead, and these preferably by the stomach.

If topical applications are resorted to, they should be such as admit of perfect solution in the atomized fluids, as alum; or in the air inhaled, as turpentine, and forced efforts at inspiration with the idea of carrying into the lungs a large quantity of medicated air; to mingle with the complementary and residual volumes are to be guarded against, lest the very effort to increase their efficiency shall increase the hemorrhage.

Where the hemorrhage is serious from its excess or persistence, ergot should be freely administered, by the stomach, if possible; hypodermatically if rapidity of action is imperative.

But in most, if not in all cases, hemoptysis should be considered due to bacillary invasion, and efforts to lessen the vulnerability of the patient should be resorted to and followed persistently.

MEDICAL PROGRESS.

The Treatment of Hip Disease.—MR. HOWARD MARSH presents (*British Med. Journal*, August 3, 1889) the following conclusions in regard to hip disease when it is treated by continued rest, and without operative interference except the opening of abscesses as soon as discovered.

1. In the first place, the anticipation which would naturally be entertained that suppuration adds largely to the immediate danger of the case, and is injurious to the ultimate condition of the limb, is confirmed. In the stage at which cases are brought to the hospital suppuration is either already present, or it occurs after admission in about half of the total number of patients. In the previous report the proportion of suppurating cases was much higher (69 per cent.), and this decrease is a source of marked improvement in the general result.

In order to prevent suppuration it is of the highest importance that the disease should be recognized early, and be treated while it is still incipient. The more perfectly these conditions are fulfilled, the more limited will the proportion of suppurating cases become; and it is in this direction that the greatest improvement in the treatment and results of hip disease will, in the future, be attained. His own estimate, from what he has seen in the hospital and elsewhere, is that the formation of abscess may be averted by early treatment in at least 80 per cent. of the total number of cases.

2. In suppurating cases which recover, about 65 per cent. are good, and 35 per cent. moderate, cures. The average shortening is one inch; 50 per cent. are movable and 50 fixed; 65 per cent. walk well and 35 indifferently.

3. In cases without suppuration which get well 77 per cent. are good and 23 per cent. moderate recoveries; the average shortening amounts to two-thirds of an inch; 50 per cent. are freely movable; 25 per cent. have slight movement, and 25 per cent. are fixed; 80 per cent. walk well and 20 per cent. indifferently.

4. The mortality due to the disease, as far as it can be ascertained in the cases he has reviewed, amounts to about 6 per cent., or if a wide margin be allowed for cases that may have ended fatally since they were lost sight of, although, when they were last seen, they were doing well, it may be safely said to be well under 10 per cent., while the mortality from general tubercular infection arising from the joint disease as a primary centre is well under 5 per cent.

A question that may naturally present itself is whether these figures are representative, or whether they are exceptional, and such as would not be confirmed were a larger number of instances taken into account.

He believes, from all he knows of the subject, that they may be accepted as typical; and he adds his conviction that the next group of a similar or larger number of cases that is published will show, not only as good, but still better results.

Now if we place the results of excision, so far as they have been recorded, side by side with the results of continued rest, he thinks there can be no doubt as to the conclusion at which we must arrive. Mr. Barker, last year, dwelt emphatically on the necessity of reducing the mortality attending tubercular joint disease; but the figures he quotes have reference to the mortality that follows excision. Thus, he gives Sach's table of 144 excisions of the knee, with 25 deaths (of which 13 were due to tuberculosis); Mr. Croft's 45 excisions of the hip with 18 deaths, 6 caused by tuberculosis; and Grosch's analysis of 120 excisions of the knee, with a mortality of 36.7 per cent., more than half of which depended on tuberculosis. The mortality here is undoubtedly so high that Mr. Barker's desire to reduce it is both natural and

praiseworthy. In Mr. Wright's cases, again, the mortality cannot be estimated at less than 20 per cent. On the other hand, in cases of suppuration treated without operation the mortality, he is confident, is not more than half this amount—that is, not more than 10 per cent. His strong impression is that it is materially less than this.

As to the ultimate condition of the limb, our information respecting the results of excision is limited. But, if we take Mr. Wright's table, we find that in less than 20 per cent. of his cases had the wound healed, while in 37 suppurating cases, treated without operation, and taken without selection, there were only 4 in which sinuses were still discharging; and in 65 per cent. the patients walked well and firmly, and without material lameness, on the limb. As to shortening, the average amount in 30 of Mr. Wright's cases was $1\frac{1}{2}$ inch; in 35 cases treated without operation the average amount was 1 inch.

The treatment recommended is that of prolonged rest in the horizontal position combined with weight extension of the affected limb. This method, although of course it involves some important details, is, in principle, so simple and so well known that it is needless to describe it; but the method of dealing with suppuration claims more particular notice. All abscesses have been opened as soon as they were detected. An incision from an inch to an inch and a half in length is made, matter is evacuated by gentle pressure, and a small drainage tube, just long enough to enter the cavity, is used for two or three days. The dressing has consisted of carbolic gauze, next the wound, and this has been covered superficially with alembroth wool. The dressing is changed according to the case. In many instances the wound closes in a fortnight or three weeks, sometimes even sooner; in others it becomes a sinus, which discharges for a month or six weeks, and then heals; in others, again, suppuration remains free for several weeks, or even longer, and further openings have to be made; but at length, in a large majority of cases, the wound heals, and no further suppuration, except in a very few instances, takes place.

Sialagogue Mixture.—The following, which should be used as gargle, is claimed by DR. STICKER, in *Revue de Thé. méd.-Chir.*, June 1, 1889, to be a most efficacious sialagogue:

Rose water (distilled)	. . .	f 3jx.
Tincture of capsicum	} . . .	f 3jv.
Tincture of ginger	. . .	
Powdered camphor	. . .	grs. xxxj.—M.

Treatment of Irido-cyclitis.—DR. SCÖLER, in addressing the Berlin Medical Society on the subject of irido-cyclitis, cited several cases in which he had obtained rapid cure by injections of a solution (one to two) of salicylate of soda into the vitreous humor of the eye. The amount injected was only one division of a Pravaz syringe. The result was most gratifying in every case. The hypopyon quickly disappeared in every case. In one case slight pain followed the injection; this, however, was only temporary. Injections of a two per cent. solution of carbolic acid were also tried in similar cases, but gave negative results.—*Deutsche med. Woch.*, June 20, 1889.

Tincture of Iodine a Cure for Warts.—DR. IMOSI, of Gibraltar, has, according to the *Lyon Medical* of July 21st, been treating warts with internal doses of tincture of iodine. He has tested the efficacy of the treatment in ten cases, all of which resulted favorably. The dose given was ten drops of the tincture in half a glass of water, twice a day. Iodine thus used will cause a slight emaciation of the patient, which loss, however, will be regained as soon as the treatment is discontinued.

Amyloid Degeneration of the Pancreas.—At a recent meeting of the Kazan Medical Society, Dr. A. I. Podbelsky read an interesting paper (*Dnevnik Kazanskaho Obshchestva Vrathei*, June and July, 1889, p. 2) on amyloid degeneration of the pancreas, in which he drew attention to the fact that the morbid lesion is by no means uncommon. Having lately made 122 consecutive necropsies (in 71 chronic and 51 acute affections), he found degeneration of the gland in 12 (9.83 per cent.). Among the cases were six men and six women, aged mostly from forty to fifty. Most frequently it accompanied tuberculosis (in 40 per cent. of all cases of the disease), and somewhat less so syphilis. Waxy degeneration of other organs was found in 25 out of the 122 cases. Macroscopically the gland was always more or less anæmic. In cases where the amyloid degeneration was well advanced, or where it was complicated with cirrhosis, the consistency of the gland was distinctly increased, while in the presence of but relatively slight waxy changes, combined with intense fatty degeneration, the organ was rather soft. Its weight was invariably found to be augmented in comparison with the standard. The same held good in regard to the dimensions of the viscus, except in two cases complicated with cirrhosis and atrophy. Under the microscope the degeneration was found to affect the walls of the arteries and periacinar capillaries, the membrana propria and fibres of the interlobular connective tissue. Fatty degeneration of the secretory cells and Renaut's *points folliculaires* was always present. Dr. Podbelsky believes that the disease may be diagnosed with probability during life, provided any new growths of the organ or obstruction of its duct can be excluded, from a chemical analysis of the patient's feces with regard to fats and starchy matters.—*British Med. Journal*, August 3, 1889.

Physical and Mental Changes after Removal of Ovaries or Uterus.—DR. GLÄVECKE, of Kiel, lately published a paper in the *Archiv f. Gynäkol.* on this subject. According to this author, the changes usually met with were those observed at the menopause. Menstruation permanently ceased immediately or shortly after the operation of removal in eighty-eight per cent. of the cases. In the remainder it was less frequent and more scanty. Practically no vicarious menstruation was observed. Menstrual molimina were observed in thirty per cent. In the time between the periods the familiar characteristic disturbances were observed—hot flushes, perspiration, and faintness. He looks upon them as disturbances of the vasomotor system, in consequence of the cessation of the ovarian function, an observation, by-the-by, that does not throw much light on the subject. He does not remark the very long continuance of this most uncomfortable condition in many of the cases—four and five years. In four cases out of a total of forty-three, palpitation and

headache came on, in one nausea, coming on several times a day, in another vomiting, in one diarrhoea, in one acne of the face lasting over a year, and in two increasing weakness of intellect. Atrophy of the internal genitals was a consequence of the operation. In twenty-three cases in which the operation was performed for myoma uteri, distinct shrinking took place in the tumors in ninety per cent. In forty-two per cent. of the cases a distinct increase in weight, due to deposit of fat, was observed. Sexual desire was unchanged after removal of ovaries in only a few women. Both desire and pleasure were much diminished, but not in the same proportion in all cases. As regarded the psychological condition, almost always a depressed, low-spirited condition was remarked. Many women became melancholic, others showed a changeable and petulant disposition. Actual psychoses developed in three cases; two recovered in the course of a year, the third was incurable.

The changes were different when the uterus was extirpated. Menstruation ceased, and no vicarious menstruation followed. Out of thirteen cases of total extirpation of the uterus strong molimina were observed in nine. If the ovaries were not removed atrophy of the external genitals did not take place. But little increase of weight took place after extirpation of the uterus. Sexual matters were almost unchanged, a slight diminution of sexual pleasure was acknowledged in a few cases. Psychically no change was observed in one-half of the cases; in more than a third a melancholy so great as to constitute a psychosis was observed. On the whole, the bodily and mental changes after castration were much greater than after extirpation of the uterus.—*Medical Press*, July 24, 1889.

Perspiring Feet.—In recent numbers of *THE NEWS* we have quoted several applications for fetid perspiration of the feet, last among which was a five per cent. solution of chromic acid, used in the German Army, and which has since proved successful in ninety-two per cent. of the cases upon which it was tried. The *Gazette des Hôpît.* of July 23d gives two additional formulæ, which are claimed to be most efficacious in overcoming this stubborn affection. DR. BARDET gives one formula, which is as follows:

R.—French chalk 40 parts.
Subnitrate of bismuth 45 "
Permanganate of potash 13 "
Salicylate of soda 2 " —M.

This powder should be dusted daily into the stockings. The feet should be washed every morning and evening, and after washing, rubbed with alcohol.

The second method of treatment, which is recommended by DR. UNNA, is as follows:

R.—Ichthyol 5 parts.
Turpentine 5 "
Zinc ointment 10 " —M.

This ointment should be applied after the feet have been bathed in water to which a little vinegar, mustard, or spirits of camphor has been added. During the day they may be dusted with the following:

R.—Powdered mustard 1 part.
French chalk 30 parts.—M.

Two Cases of Antifebrin Poisoning.—The first case, reported in the *Münch. med. Wochenschrift*, No. 19, 1889, was that of a man, aged thirty-four, who fancied he had symptoms of fever, and procured from a druggist six antifebrin powders, of $15\frac{1}{2}$ grains each. Returning home he took one powder every hour until five had been taken, beginning at 8.30 P.M., the total amount being seventy-seven grains. At four o'clock in the morning the patient was seized with violent diarrhoea. At about noon his appearance was as follows: Conjunctiva, lips and mucous membrane of mouth were blue; pulse small, but of normal frequency; heart normal. The urine gave aniline reaction. Extreme weakness, dizziness and chills; temperature 99° F.; evening, 101° F. Temperature on the following day, morning 95° F.; evening, 100° F. The diarrhoea persisted for several days, the stools being quite watery and of a grayish-black color. The patient suffered from loss of appetite, and recovered but slowly. In ten days he was able to be about again.

The second, which was reported in the *Wiener med. Presse*, No. 16, 1889, has the following history: The patient was a girl, who, to relieve an attack of hemicrania, had taken sixty-two grains of antifebrin. Immediately after taking the dose she experienced nausea, eructations, and later, pain in the region of the stomach and copious vomiting of a greenish watery fluid. These symptoms were followed by cyanosis, at first only of the lips, later of the entire face, hands and feet, whilst the skin of the body was pale and very cold. Pulse weak, almost imperceptible, but frequent, 140 pulsations to the minute; respirations shallow and rapid; the patient almost entirely unconscious. Later, symptoms of cerebral irritation manifested themselves; enlargement of the pupils, muscular twitchings of the face, gritting of teeth, rigidity of the extremities, and delirium. The patient then sank into a deep coma, from which she awoke in three hours.

Eight hours after the poisoning her senses fully returned, pulse eighty-four, and fairly strong; respirations normal, temperature somewhat sub-normal. Patient complained of pain in the stomach, and dizziness. Cyanosis disappeared in twenty-four hours. In two days the patient was able to leave her bed.

Treatment of Pruritic Affections with Menthol.—The analgesic properties of menthol render it valuable in diminishing the pain in pruritic affections, notably of senile pruritis, the pruritis of eczema, of itch, and also of urticaria.

For this purpose the drug may be either prescribed as a tincture, a liniment, or a salve.

I. Tincture or spirits of menthol:

R.—Menthol 1 to 3 parts.
Alcohol (at 104° F.) 50 to 60 " —M.

Sig.—For external application to the affected parts.

II. Menthol liniment:

R.—Menthol 3 parts.
Olive oil 30 "
Lanolin 30 " —M.

The action of this preparation is most efficient.

III. Menthol salve:

R.—Menthol grs. xxxix.
Balsam of Peru f ʒjss.
Lanolin ʒjv.—M.

In some severe cases the portion of menthol may be increased with benefit.—*Gazette hebdomadaire de Méd. et de Chirur.*, June 21, 1889.

The Prognosis of Coryza in Young Children.—Dr. J. SIMON, of Paris, recently writing upon the prognosis of coryza and laryngitis in young children, divides his observations under two heads: First, the prognosis of the above disease in infants, and, second, the prognosis in children above two years of age.

Acute coryza in infants always offers a grave prognosis. The accumulation of mucus in the nasal cavities causes difficulty in breathing, insomnia, and also a certain amount of fever. The prognosis is still more unfavorable if the disease takes a chronic form. The affection may become very intense and accompanied with fever and gastric troubles. Finally, it may also give rise to other serious troubles, and extend to the larynx and bronchi.

When occurring in children over two years of age, acute coryza is not so grave an affection, but still should be actively dealt with in order to prevent its encroachment on the larynx and bronchi. But at this age alimentation is accomplished with ease. Nevertheless, the disease may take a chronic form and give rise to osteoperiostitis, ozæna, tonsillitis, and even nasal polypi.

If in infants coryza takes a clearly acute form, it is always accompanied by more or less fever. In syphilitic cases, however, fever is absent, and there is a continuous running at the nose and a discharge of mucus in which, at times, traces of blood may be detected.

The prognosis of diphtheritic coryza is similar to that of diphtheria. Trousseau is of the opinion that laryngeal diphtheria is more fatal than the nasal form; but Simon considers either equally serious.—*Revue gén. de Clin. et de Thér.*, June 20, 1889.

Antipyrin in Sciatica.—In a stubborn case of sciatica, after all the usual remedies had been tried without avail (salicylic acid, iodide of potash, bromide of potash, quinine, etc.), Dr. J. COVARRUBLAS, of Lima, determined to experiment with antipyrin. He accordingly prescribed doses of eight grains, three times daily. The pain disappeared entirely in one day, and ten days later the patient was able to leave the hospital, cured.—*Revista Médica de Chile*.

Treatment of Coryza.—Another "cure" for coryza is added to the already large list. We quote it from the *Centralb. für die Gesamt. Therap.*, No. 7, 1889:

Hydrochlorate of cocaine	1 part.
Phenic acid	1 "
Menthol	1 "
Eugenol	2 parts.
Lanolin	15 " —M.

Sig.—To be applied to the mucous membrane of the nose by means of a cotton pellet.

The Value of Sulphonal in Mental Diseases.—After having experimented extensively with sulphonal upon a large number of cases of mental and nervous diseases, Dr. GARNIER, in the *Deutsche med. Wochenschrift* of June 20th, comes to the following conclusions:

1. Sulphonal is a most valuable hypnotic in mental

diseases. Sleep could be induced in nearly every case by doses varying from two to five grains.

2. Sulphonal proved itself of value in all cases where paraldehyde, urethan, and chloral were used without success.

3. Its tastelessness and odorlessness render it extremely applicable in mental cases, and the fact that it produces no injurious effects upon the heart, digestion, or respiration is an additional point in its favor.

4. Out of 100 cases, vomiting was observed in 5.50 per cent., and slight diarrhoea in 17.7 per cent. Such symptoms contraindicate the use of sulphonal.

5. The above symptoms are sometimes accompanied by dizziness and a staggering gait, similar to that produced by alcoholic intoxication; such should also contraindicate the use of the drug, particularly if any symptoms of congestion exist.

6. A diuretic action was observed to follow the use of the drug in 17.7 per cent. of the cases.

7. Single large doses do not have a soothing effect during the day, but produce sleepiness, and this indicates the advisability of decreasing the dose.

8. When sulphonal was given only every other night, the intervening nights were also observed to be spent in comparative rest.

9. In healthy subjects not suffering from any mental or nervous disorder, sulphonal induced a long and natural sleep. The accompanying symptoms were not noteworthy.

10. In females the action of the drug is more rapid than in males. In no case was the hypnotic action absent when the drug was given in single large doses; when the dose was divided, the results were but moderately good.

Treatment of Confluent Variola.—The following treatment of confluent variola, quoted from the *Rev. gén. de Clin. et de Thér.* of July 4th, is recommended by Dr. BAUDOUIN, of Mouy, France.

1. Apply, three times a day, the following salve to the face, neck, limbs, and body:

R.—Salicylic acid	10 parts.
Vaseline	225 " —M.

2. After each application of the ointment, dust the entire body with the following powder:

R.—French chalk	125 parts.
Salicylic acid	5 " —M.

3. Give, daily, three capsules of sulphate of quinine containing four grains each.

4. Gargles of borates will be found valuable.

5. Milk diet should be enforced.

The Infectiousness of Herpes.—Not long ago there was what might be called an epidemic of herpes in Dr. Unna's Hospital for Diseases of the Skin in Hamburg. All the cases occurred within five weeks, and in all five patients were affected. The primary case was one of herpes zoster on the chest of a man, three others had herpes labialis soon after, a fourth herpes facialis, and the fifth a herpes on the abdomen. Dr. TÖRÖK, in the *Centralblatt f. med. Wissenschaft.* of July 27th, considers that this outbreak points strongly toward the infectiousness of herpes.

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THE TREATMENT OF FRACTURE OF THE PATELLA.

THE recent history of the development of professional opinion concerning the methods of treatment of fracture of the patella is an illustration of the corresponding development which has taken place and is still going on in the entire field of operative surgery under the stimulus and the influence of the antiseptic theory of the treatment of wounds. Before that theory was introduced we possessed the knowledge of and habitually practised various non-operative methods of treatment of fracture of the patella which involved no risk to the life of the patient and discharged him with what was, in the great majority of cases, a thoroughly serviceable limb, although the broken fragments remained more or less widely separated and the union between them was fibrous and not bony.

Then came the antiseptic method with its promise of far greater freedom from the accidents and complications of open wounds. As experience was gained, confidence in the theory increased, the not infrequent disappointments were attributed to avoidable errors of technique, and the step to the far-reaching generalization that any operation that was anatomically possible was also justifiable and free from risk if properly executed, was easily taken by the enthusiastic disciple. With this came open arthrotomy of the knee and wiring of the fragments of the broken patella, an attempt to substitute an absolute *restitutio*

ad integrum, a bony union without separation of the fragments, for the fibrous union with more or less separation.

Finally came the period of disillusion, the period of reverses and of promises fulfilled only in part. Granting that inflammation and suppuration are due to faults of technique, we have learned that those faults are not always avoidable, even by those who are most experienced and skilful. And at the knee we have learned that important functional defects after wiring of the patella are as frequent and as great as they are after non-operative treatment, and that, in addition, this operation has been followed in a considerable proportion of cases by suppuration of the joint, ankylosis, amputation of the thigh, and even death. But while this proportion of failures is large enough to justify the condemnation that has been set upon the employment of the operation in fresh, uncomplicated cases, yet it is still small enough to justify resort to it under exceptional circumstances, and to this extent it has become a valuable addition to our resources. It is, however, still necessary, as was shown in the recent discussion in the Philadelphia Academy of Surgery, to point out the dangers of the method and to check the tendency to undue expansion and generalization created by individual successes.

Meanwhile, under the protection of antiseptics other less radical and thorough-going operative procedures have been devised and the treatment of Malgaigne's hooks, now upward of half a century old, has won new favor. It must be admitted that treatment by splints and bandages alone, by means that do not act directly upon the fragments, does furnish from time to time a deplorable result, and that, as a rule, the failure is not recognized until after it has become too late to remedy it; consequently, the need for a more certain and trustworthy method exists. The problem is to bring the fragments together and to keep them together until a sufficiently firm union shall have taken place to render further external methods of retention unnecessary. The intervening curtain of fibrous tissue torn from the anterior surface of one of the fragments, with which the name of Macewen is associated (although it was previously noted by others) and to which so much importance is attached by some, is a bugbear. Such a curtain does undoubtedly exist in many cases, but its area is very much smaller than that of the fractured surface and it is not a bar either to bony union or to fibrous union of sufficient

strength and inextensibility. It does not, therefore, require or justify radical methods for its removal. So, too, with the presence of blood within the joint; its amount is seldom large, there is but little reason to think that it diminishes the subsequent freedom of motion of the joint, and if it should seem to require removal this can be done with an aspirator.

The methods in which the fragments are directly operated upon may be considered in two groups: those in which an external apparatus controls the fragments by means of metal pins passed through punctures in the skin to take a firm hold upon the bone; and those in which the fragments are temporarily or permanently bound together by metal or silk subcutaneous sutures, or subcutaneously transfixed by metal pins. Of the first, Malgaigne's hooks are the type, and the other members of the group are, indeed, only modifications of them. They are too well known to need more than a mention. Of the subcutaneous methods sufficient experience has not yet been gained to permit a final judgment of their availability. One of them, which has been quite extensively used during the past year by some of the New York surgeons, and which promises well, consists in passing a stout silk ligature through the tendon of the quadriceps and the ligamentum patellæ close to the bone and twice across the front of the fragments, through four punctures in the skin at the upper and lower corners of the bone, or through two transverse incisions, and drawing it snug and tying it while the fragments are held together with the fingers or tenacula. This was referred to in the discussion above mentioned as Volkmann's method, but incorrectly, for Volkmann's method was to pass two silk ligatures transversely, one through the tendon, the other through the ligamentum, tie each in a loose loop over the skin, and then to draw the loops together (and thereby the fragments) by an external cord. The difference may not be deemed radical, but the chance of suppuration seems to be less in the completely subcutaneous method, and it gives opportunity for an earlier employment of massage.

A somewhat similar method, but one requiring a larger armamentarium and offering greater operative difficulties is that of Ceci, an Italian surgeon, who brings the fragments together with the fingers, drills them diagonally from one lower to the opposite upper corner, draws a silver wire through, passes it under the skin to the other lower corner, drills the bone again on the other diagonal, and draws the

wire through it and then under the skin across to be twisted with its other end. Dr. T. G. Morton passed the drills along the two diagonals and held the fragments together by clamps placed on the projecting ends of the drills.

To summarize, then, we may say that the old method of immobilization of the joint upon a posterior splint with retention of coaptated fragments by bandages will furnish a large percentage of successful results, and is to be employed in default of special instruments, or of the opportunity to carry out operative methods with the necessary protection; but it requires that the fragments should be left uncovered for frequent examination in order that subsequent separation may be promptly detected and remedied.

Malgaigne's hooks, in any of their modified forms, accomplish their object with much certainty and freedom from risk, but occasionally troublesome suppuration occurs.

The various subcutaneous methods hold out a fair promise of both efficiency and freedom from risk, with the advantage that the patient needs close supervision for only a few days, or until the punctures in the skin shall have healed. He can then be dismissed with a plaster splint, to be worn for a month, with no anxiety lest the adjustment of the fragments should be disturbed.

The operation of opening the joint and wiring the fragments should be used only under exceptional circumstances.

POISONOUS TEXTILE FABRICS.

THE occurrence of eruptions in those wearing colored fabrics next the skin is not rare, but our knowledge of the substances most likely to produce such poisoning is not exact. Arsenic in various combinations frequently produces marked irritation. At a recent meeting of the Berlin Medical Society, WEYL (*Münchener med. Wochenschrift*, No. 23, 1889), in a paper upon this subject, considered dye-stuffs not so poisonous as the mordants by which they are applied to the fabric. Among the few carefully analyzed cases of such poisoning which he had collected, he found an epidemic of lead poisoning among workers in yarns at Lyons who used lead chromate in a yellow dye. Saddlers use thread similarly colored. In another instance, a tricot material was found to be colored yellow with saffranin; this dye was intensely poisonous to animals by subcutaneous injection, although harmless

when swallowed. Eosin produces an eruption when used as a dye, but is not poisonous. In a case of poisoning ascribed to material dyed with indigo, an excess of sulphuric acid was found the active agent. Indigo itself is innocuous.

In the discussion following, pityriasis rosacea was reported to have followed the wearing of tricot materials; chrysoidin, a yellow powder, was also observed to cause severe irritation among workmen who used it in dyeing. A certain allowance must be made in such cases for individual susceptibility, for as persons vary in the irritation produced by articles of diet, so they differ in susceptibility to irritants in clothing.

In prophylaxis the rule should be made that no colored article should be worn next the skin which has not first been boiled. This simple precaution is usually sufficient to prevent poisoning by poisonous fabrics.

We are in receipt of a formal announcement from Professors von Bergmann, Virchow, and Waldeyer, that according to the resolution passed at the Washington meeting, September 9, 1887, the Tenth International Medical Congress will be held in Berlin. The Congress will be opened on the fourth and closed on the ninth day of August, 1890. Detailed information as to the order of proceedings will be issued after the meeting of the delegates of the German medical faculties and medical societies at Heidelberg, on the 17th of September in the current year. Meanwhile they extend a cordial invitation to attend the Congress. An office has been established at Karlstrasse 19, Berlin.

THE fourth session of the French Congress of Surgery will be held in Paris, from the 14th to the 20th of October of this year, Baron Larrey presiding.

The following subjects will be brought forward for discussion:

1. The immediate and remote results of practical operations for local tuberculosis.
2. The surgical treatment of peritonitis.
3. Treatment of aneurisms of the limbs.

THE AMERICAN PEDIATRIC SOCIETY, which was organized at Washington last autumn, will hold its annual meeting at the Army Medical Museum building, Washington, D. C., on the 20th and 21st of September, under the presidency of Dr. Jacobi. The preliminary programme has just been issued, and includes papers by Blackader, of Montreal;

Booker, Latimer, and Osler, of Baltimore; Jacobi, Dillon Brown, Caillé, Fruitnight, Huber, Koplik, Northrup, O'Dwyer, Seibert, Lewis Smith, and Vineberg, of New York; Earle, of Chicago; Jeffries, of Boston; Love, of St. Louis; Meigs, of Philadelphia, and Vaughan, of Ann Arbor.

We are informed that Dr. J. R. Taylor, of Phillipsburg, Pa., has been elected to the chair of Pathology and Practice of Medicine in the Medical College of South Carolina.

THE U. S. Grant University has organized a medical school, with a complete faculty, at Chattanooga, and the winter course opens on October 7th.

AN ancient treatise on anatomy has been unearthed at the Royal Library at Berlin. It was written in Latin in 1304, by Henry de Mondeville, professor of surgery at Paris and Montpellier, and body-surgeon to Philip le Bel. Surgeon de Mondeville was at one time on English soil as an army surgeon, and his death took place in 1318. The book has never been printed. It is valuable as throwing light upon a period, concerning whose medical history there is but little known.

THE Baly Memorial of the Royal College of Physicians has been awarded to Dr. Heidenhain, of Dresden. It consists of a gold medal, and is issued every second year for some noteworthy accomplishment in physiology. Bernard, Darwin, Brown-Séquard, and Ferrier have been among those who have received the Baly medal.

DR. HARVEY E. BROWN, Major and Surgeon, U. S. Army, died of consumption last Tuesday at Jackson Barracks, near New Orleans, and was buried at the National Cemetery at Chalmette on Thursday. He was a son of Col. Harvey Brown of the Fifth Artillery. Graduating at the University of New York, he entered the army as Surgeon in General Sickles's Excelsior Brigade (Seventeenth New York) in 1861 and rendered notable service. He saw considerable service during the yellow-fever epidemics in the South during the past twenty-five years. He was the author of a report on a "More Efficient System of Quarantine on the Southern and Gulf Coasts" (1872) and of a history of "The Medical Department of the United States Army from 1775 to 1873" (1873).

SOCIETY PROCEEDINGS.**PHILADELPHIA ACADEMY OF SURGERY.***Stated Meeting, June 3, 1889.***J. EWING MEARS, M.D., IN THE CHAIR.**

(Concluded from page 191.)

DR. F. H. GROSS reported a case of**FRACTURE OF THE PATELLA TREATED BY MALGAIGNE'S
HOOKS**

in the German Hospital. About three months ago the patient fell and fractured the right patella. He was admitted to one of the hospitals in this city and treated by hard pads above and below the patella. After remaining in the institution four weeks he left and began walking about. At this time there was separation wide enough to receive his finger. After going about for a week he fell and severed the ligamentous union. He was then admitted to the German Hospital, and as soon as the swelling subsided a modified form of Malgaigne's hooks were applied. This was April 27th. The hooks were allowed to remain in position three weeks, and it is now three weeks since they were removed. The union is very close, but whether it is bony he could not say.

This is the second case in which he had used this instrument. He saw the first case some months after he left his care, and the union seemed to be bony. The result was very good.

Where the hooks are secured together by a screw, the screw is apt to become rusted, and in removing it a portion of the bone may be chipped off. He has modified the instrument by having the upper and lower pairs of the hooks slide together. On the upper surface of each is a projection, by means of which they can be secured together, first by thread and then by a strong rubber-cord. This tends to keep up a steady and continuous traction, so that anything between the fragments of the patella will be subjected to constant pressure or forced out. Each section of the instrument is furnished with a removable handle, by means of which it can be conveniently held and applied. In fixing the hooks he drives them well into the bone.

DR. THOMAS G. MORTON said that the usual method used in treating fractures of the patella by compressing all the tissues about the knee-joint interferes materially with the circulation, and undoubtedly tends to want of bone union, which is not the case when the fragments are held together by hooks, pins, or by suture. The Malgaigne hooks he had often used, and only in one instance was he obliged to remove them on account of irritation produced. He has also used a long steel pin for retaining fragments in position. Now, with perfect antiseptic precaution, the joint can be opened, the fragments approximated by suture with little danger and with fair prospect of bone union.

DR. J. M. BARTON said that Macewen states that where the patella is broken by muscular action the overlying tissues are stretched and ruptured and fall in between the fragments preventing bony union, and nothing less than opening the joint and removing these tissues will permit bony union. When the fracture is due to direct violence, of course, these tissues are not stretched and ruptured, and do not prevent bony union. When, however, the fracture is due to muscular violence and the

fragments are not widely separated, it is possible that the overlying tissues are stretched but not ruptured, and bony union may perhaps be obtained without any operation. The existence of soft tissues between the fragments might be determined by the amount of crepitation obtained on rubbing them together. He had opened the joint and wired the fragments in two cases. In the first case the patella was broken into three pieces by muscular violence. It occurred while the patient, a heavy man, was jumping off a moving car; before he fell to the ground he felt the fracture. He stated that he felt two distinct snaps. Owing to the complicated manner in which the speaker was obliged to pass the wire he felt that he would not be able to remove it, so he cut the ends short and buried them in the patella. The man made a perfect recovery from the operation; there is bony union, but he has a very limited motion at the joint. In the second case the line of fracture was straight across and was also due to muscular action. This case was treated at the Jefferson Hospital about three months ago. He removed the wire six weeks after he inserted it. He also has good bony union and is already able to bend the leg nearly to a right angle. In neither case was there any danger to life. In both he was able to verify the statement of Macewen that there was a layer of tissue between the fragment. It lays over each rough broken surface and is closely adherent to it; it can be raised up, but when released it falls back into position. In the first case the layer over each surface of bone was at least one-eighth of an inch thick. He trimmed them carefully off with scissors after they were raised.

DR. CHARLES B. NANCREDE said that there is one point in regard to the anatomy of the knee-joint to which Hamilton has called particular attention, and which explains the stretching. The patella is attached to the tibia not only by the tendon of the rectus which, passing downward, forms the ligamentum patellæ, but also by the expanded tendons of the two vasti which are extended downward and attached to the epiphyseal line of the tibia. He states positively—and **Dr. Nancrede** thought that his observations confirm the statement—that if at the time of the injury there is an inch separation, due to a tearing of an inch of this fibrous hood of the quadriceps, there will be an inch of separation when the patient has used the limb for, say, a year. If there is two inches original separation there will be the same amount when the patient gets well, unless bony union is secured. There will be no separation unless the fibrous hood of the quadriceps tendon is torn, and the extent of the separation will be in proportion to the extent of this tearing.

He recently had an interesting case which was sent up from the dispensary, confirming these statements. The man stated that he had injured the patella about a week previously, since when he had pain in walking. There was a transverse fracture readily made out. There had been no tear of this fibrous hood, and there was no separation of the fragments. By rubbing the two fragments forcibly together in a lateral direction distinct bony crepitus was elicited, and the finger-nail could follow the transverse fissure across the whole extent of the bone. These peculiar points were readily detected by his interne and by one of his colleagues.

DR. WILLIAM G. PORTER desired to hear the experience of the Fellows in regard to the result in these cases

where there is considerable separation, and what amount of motion is recovered eventually. It had been his fortune to see one or two cases in which the result was unusually good, but, of course, we do not often have the opportunity of following these cases to their termination. Some years ago he had a case at the Dispensary of St. Mary's Hospital where the separation was sufficient to admit three fingers. The patient came with a leg ulcer, not to be treated for the knee trouble. He seemed to have as good motion in the one knee as in the other and he said that the limb was just as useful as the uninjured one. He had seen a similar case at the Philadelphia Hospital. He did not know whether or not this was an isolated experience.

DR. J. EWING MEARS had been much interested in this subject during the past year, and had asked himself whether it would be well to change the nomenclature in these cases and speak of them as rupture of the tendon of the quadriceps extensor femoris with fracture of the patella. There may be a rupture below, or it may occur above, or it may take place through the patella. He thought in these cases we should regard the tendon rather than the bone. The fracture of the bone is incidental. In these cases where the injury is the result of muscular action, the tendon is the part to which attention should be devoted. If we suture the tendon and keep the limb quiet we shall secure as good union as by any plan the object of which is the consolidation of the bone. The rupture of the tendon is the important element. Where the fracture is the result of direct violence there is no separation because the tendon is not stretched or ruptured. Rupture of the tendon, with or without fracture of the small bone which it encloses, should be treated in the same manner as rupture of a tendon in any other part of the body—by careful suturing and prolonged rest until a firm union occurs. The occurrence of complete rupture of the tendon with fracture of the bone as the result of muscular action is very rare, if indeed it ever takes place, and the recurrence of separation of the fragments after treatment in many cases is due to the incomplete and imperfect adhesions which have formed between the foldings of the elongated and partially ruptured fibres of the tendon. As soon as the limb resumes its function these adhesions break, the tendon unfolds partially or completely, causing separation of the fragments of the bone which is part of the tendon.

The proper treatment would seem to be exposure of the tendon by an incision, retrenchment, and accurate apposition of the edges of sutures, by means of which the fragments of the patella will necessarily be brought into apposition and osseous union occur. In place of this operation, which is not entirely devoid of danger, the method of Volkmann may be employed, which consists in passing a silver wire or a strong silk ligature subcutaneously though the tendon of the extensor muscles, and the ligament of the patella by which procedure he has obtained excellent osseous union in a number of cases. In all cases prolonged quiet of the limb is most important, use being prohibited for at least a period of three months.

DR. J. M. BARTON: In reference to the question of Dr. Porter, I would say that the cases he had seen had been very unfortunate. He had certainly met with eight or ten cases in which the other patella was broken, and in at least three the same patella has been rebroken.

When the fracture is treated in the usual manner, without opening the joint or wiring the bones, we obtain tendinous union, all that Dr. Mears claims, and this tendinous junction stretches and occasionally breaks. The point which had been made in regard to the tendon is a good one. If we cut down to suture the tendon, we should not neglect to wire the bone. The risk would be as great, the joint is quite as much exposed in suturing the tendon as in wiring the bone. Suture of the tendon will not be sufficient, though it might be done at the same time.

One case had been under the care of a colleague; the patient broke his patella, and two years later broke the bone of the other side. About six months later he re-fractured the first patella. A short time later he broke not only the ligament of the same patella, but also ruptured the skin over it, making a compound dislocation of the joint. The fragments of bone were a long distance apart, and the remaining ligament was so trifling in amount that it would evidently be useless if sutured. It was decided on consultation to excise and make a stiff joint.

DR. F. H. GROSS said that there was a case in the marine department of the German Hospital under treatment for some medical trouble, who had had a separation of the ligament of the patella. This bone was some distance above the joint, and the condyles of the femur could be felt below it. He had, however, good use of the limb. It was clearly shown that its usefulness was dependent upon the accessory tendons from the vasti muscles. When he raised the limb these tendons came out very distinctly.

DR. WILLIAM HUNT did not wish to say anything against reasonable efforts to obtain the best possible results, but whilst listening to this discussion it was impossible for him to recall a single case in which any permanent serious disability had arisen from fracture of the patella. No matter how great was the separation, good functional result was secured, and the patients have been able to go about and attend to their business. With such an experience he could not justify what appeared to him to be rash operative measures in treating single fractures of the patella. He had recently read of three deaths from opening the knee-joint, washing out, and wiring. Again, he had watched cases thus treated by others. The results have been no better than those obtained by the old and safe methods. Have we, therefore, he asked, a moral right to risk life when there is no occasion for doing it?

DR. NANCREDE had seen one case in which there was a separation of several inches, with an admirable functional result. He recalled another case in which the patient fell and broke the ligamentous union between the two fragments of a broken patella. It would have been impossible to wire the fragments together without dividing the quadriceps tendon freely. He did the best that he could, but the result was very poor. Hamilton in his work on *Fractures of the Patella*, reporting one hundred and twenty-three cases, states that ligamentous union is as good as bony union even if this can be attained. This statement was made before the time when the fragments had been wired together sufficiently long to judge of the risks and advantages. He cites case after case in which there was great separation, but in which the functional result was good in support

of his view. The speaker had used the modified Malgaigne's hooks where there is any tendency to separation. In any case where he operates by incision and wiring he should suture the tendon as Dr. Mears suggests.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPÆDIC SURGERY.

A. B. JUDSON, M.D., CHAIRMAN.

Stated Meeting, March 15, 1889.

CICATRICAL CONTRACTION OF FINGERS.

DR. A. M. PHELPS presented a patient on whom he had operated four weeks ago for restoration of motion to the fingers, which had been flexed in the palm by a cicatrix in the wrist of eight years' standing. He had freed each tendon from the cicatricial tissue and had secured healing by blood-clot, with the hope that new sheaths would be formed in the clot. The wound was dressed antiseptically, and the first dressing was changed at the end of three weeks. The prospect of recovery of motion was good.

DR. R. H. SAYRE said that Paget had long ago recognized the organization of blood-clot after subcutaneous tenotomy. The case presented by Dr. Phelps shows that advantage can be taken of it after open incision under antiseptics.

DR. N. M. SHAFFER presented a patient, a girl of twelve years, who had been affected for ten weeks with

HYSTERICAL EQUINO-VARUS

and rhythmical movement of the left foot. The talipes was reducible manually, but the motions were persistent. There was inability to walk, the result of the disability of the quadriceps extensor group. Before coming under Dr. Shaffer's observation plaster-of-Paris had been applied to the limb for several weeks, but without benefit.

DR. A. B. JUDSON thought that choreic elements were seen when the patient attempted to walk. He recalled a case of rhythmical myoclonus reported by Dr. Peckham in the *Archives of Medicine* in 1883, in which the patient had been subjected to a great variety of treatment, and finally recovered after the hypodermatic use of atropine.

DR. S. KETCH suggested treatment by hypnotism.

DR. R. H. SAYRE thought that the case illustrated the fact that abnormal muscular contraction can produce degrees of deformity as marked as those caused by bony distortion.

DR. L. W. HUBBARD thought the case allied to chorea, being the result of nerve irritation or exhaustion. He suggested absolute rest or recumbency for a long period with efforts to improve the nutrition.

DR. A. S. HUNTER had treated with success a case of hysterical hip by the administration of *ignatia amara*. The use of this drug in a number of cases of this kind had led him to value it highly when the disturbance was limited to groups of muscles only; but he thought it was of little value in the treatment of general choreic conditions.

DR. V. P. GIBNEY had had a favorable effect in a case of rotary spasm of the neck, from the fluid extract of gelsemium, given in five-minim doses, and pushed almost to toxic effects.

DR. H. W. BERG said that the contractions in the case

shown could not be due to nerve lesion because it yielded so readily to manual replacement. Where there is irritation of motor nerves as in spastic paralysis, it is extremely difficult to reduce the limb to a proper position. He suggested the ordinary treatment of chorea with electricity to make an impression on the mind rather than on the nerves.

DR. PHELPS then read a paper on

THE MANAGEMENT OF HIP-JOINT DISEASE FROM AN ANATOMICAL BASIS.

In regard to the pathology of hip disease, Dr. Phelps believes that it is a local tubercular affection, due to accidental inoculation and not to a constitutional or strumous condition. Following Volkmann, Albert, and König, he believes that the inflammation, at first simple, becomes tubercular by inoculation, and then purulent. The irritation of the peripheral extremities of the nerves in or about the joint produces muscular spasm, which in turn distorts the joint by trauma, aided by the bacilli of tuberculosis.

In regard to treatment, he relies on mechanical treatment, believing that if we immobilize a joint and remove the intra-articular pressure, Nature will take care of the tuberculous material. His experiments on dogs had convinced him that immobilization of healthy joints does not produce ankylosis. Encouraging motion in an inflamed joint is a violation of the surgical law that an inflamed part requires rest. He believes that the muscular spasm, which is a most serious element of destruction, should be overcome by extension, and that while extension is necessary to secure immobilization, it is not sufficient by itself. He, therefore, resorts to a combination of extension and fixation; the extension always to be in a line corresponding to the axis of the neck of the femur.

Treatment as a rule should be begun in bed, extension being made in two directions, *i. e.*, toward the foot-board and laterally, the body and well leg being fixed to a long splint extending to the axilla. If the deformity does not yield to extension properly applied, the tissues at fault should be divided subcutaneously or by open incision. Abscesses are to be incised through their entire length, and thoroughly scooped out and washed, strict antiseptic precautions being observed.

Distention of the capsule should be relieved by aspiration or incision; then traction will not produce pain.

He exhibited a patient in a portable bed, which is an ingenious substitute for the wire cuirass, made with a board cut in an outline of the body and plaster-of-Paris. The child is laid on the board, and then the whole enveloped with plaster-of-Paris bandages from the foot to the axilla. The plaster is then cut away in front, the interior comfortably padded, and the patient held in place by lacings or bandages. Extension and fixation in bed are to be continued until the active symptoms and the deformity have entirely disappeared, and the spasm of the muscles is no longer present. Adults are then given crutches, and a portable splint which has a perineal crutch, extension by adhesive plaster, an abduction bar, and an upper (thoracic) ring to prevent flexion and extension at the hip. Children, after treatment in bed, are to have the portable bed, and then the portable splint, with or without the high shoe and crutches.

DR. J. RIDLON was much pleased to hear the author

of the paper take the ground that hip cases should be cured without deformity. He recalled a case of a patient in whom the muscular spasm had been relieved by pinching the muscle. The child was very thin, and it was found that when the adductors were separated from the other muscles and the belly of the muscle was pinched without any attempt at fixation, there was as much relief as could have been afforded by lateral traction.

DR. SHAFFER said that the paper had suggested to him the importance of separating in our minds the disease from the deformity. It is a question how far we are justified in meddling with the deformity, which is simply an expression or, so to speak, a symptom of the disease. In his experience attempts at speedy reduction of the deformity had been followed by disastrous results. Nature gives a very positive indication in the acquired position of the thigh—that in which the immobilization of Nature reaches its maximum, and the diseased parts receive the greatest relief from reflex muscular spasm. If we forcibly interfere with this effort on the part of Nature, we inflict a distinct traumatism.

On the threshold of treatment the important question is, not whether traction is to be made in the line of the shaft or the neck, but how to secure an artificial immobilization in the position Nature assumes as the one that affords the most protection to the inflamed parts. He believed that if the joint were protected from traumatism—in other words, if traumatic contact of the inflamed joint surfaces is removed, and this can readily be done by the use of portative apparatus without entailing immobilization of the entire body from the head down—the joint is placed in the best known local condition.

The portative traction treatment is compatible with fresh air, sunlight, and moderate exercise, which are the best means of combating the tubercular disease and the tubercular diathesis. More lives have been saved and better results have been thus secured, than by any other method which has been thoroughly tested.

DR. R. H. SAYRE agreed with Dr. Shaffer as to the importance of maintaining the general health, and the inadvisability of general immobilization of the body, if the diseased joint could be controlled without it. He thought that complete immobilization of the hip-joint in young children was very difficult to secure; and that the movement that stopped short of producing muscular spasm and pain was not harmful. For poor children particularly, he thought the portable bed was an admirable contrivance. The relief obtained in some cases by pinching the muscle could be explained on the supposition that it stopped the reflex action of the muscle. It is known that firm constriction of the belly of a muscle will, in certain cases, abolish spasm.

DR. CHARLES L. SCUDDER, of Boston, advocated a more frequent resort to the results of experiment on the cadaver. He recalled Dr. Bradford's experiments made in 1880, in which it was found that in an adult a force of one hundred pounds was not sufficient to separate the head of the femur from the socket; while in the shallow and yet not completely ossified acetabulum of a young child, a moderate force causes separation, and less force was required in the foetus. Dr. Scudder believed that in hip disease of children, a tractive force of from three to five pounds would separate the joint surfaces, as was illustrated at the Children's Hospital in Boston in the

case of a young boy who had hip disease and night cries. The joint cavity was opened and a small quantity of pus evacuated. While the boy was under ether, it was found that traction made with the hand separated the joint surfaces to such an extent that the finger could be placed between the head and the acetabulum.

DR. HUBBARD thought that no one at the present time held the opinion that ankylosis is caused by immobilizing the joint affected with chronic inflammation. He had found it difficult to get ankylosis in cases where it was desirable, as in disease of the knee. The first object is to give rest to the joint, which is best done by traction; not to separate the surfaces, but to overcome articular pressure which leads to muscular spasm. He believed the long hip splint gave sufficient immobilization for all practical purposes. It is more easily managed than the portable bed of Dr. Phelps, which from neglect would be likely to cause excoriations. As the disease seems to be a struggle between the tubercle bacilli and the vitality of the organism, he thought it especially important to place the system in the best possible condition to resist attack. He had rarely seen constitutional disturbance from abscesses which had been left alone, although, in exceptional cases, acute and painful conditions are certainly greatly relieved by surgical interference.

DR. JUDSON commended the title of the paper. It was an admission that hip disease is not to be cured by treatment, but so managed that the almost inevitable recovery by natural processes should be with the minimum of disability and deformity. He thought that more emphasis should be placed on the importance of protecting the joint from the traumatisms of standing and walking, as is done by the use of Hutchinson's extra long crutches and high sole on the well foot. But in every case there are long periods of exemption from pain, when this simple apparatus will be discarded. The ischiatic or perineal crutch of the hip splint, however, cannot be wilfully discarded; and when it is seen that the rack and pinion not only furnish traction, but also a convenient means of adjusting the length of the upright, the hip splint appears to come very near perfection as an instrument for the management of hip disease. He had never recognized either the trauma said to be caused by reflex muscular contraction or the alleged mechanical counter-action of the muscles by traction. He believed, and had always held, that the hip splint mitigates reflex muscular contraction by allaying the inflammation which gives rise to it. This it does by arrest of motion and prevention of pressure; motion being arrested by traction brought about by the use of the key, and pressure being averted by the perineal or ischiatic crutch, which makes the limb a pendent member. As the inflammation is resolved the reflex muscular contraction ceases.

The last annual report of one of our orthopaedic institutions contains a table, from which it appears that there have been under treatment 371 cases of disease in the hip; 6 in the shoulder; 85 in the knee; 3 in the elbow; 27 in the ankle; and 5 in the wrist; an aggregate of 483 in the lower, and 14 in the upper extremity. Shall we draw the inference that the incipient osteitic focus is found only or chiefly in the cancellous tissue of the lower extremity, or that a focus in the upper extremity more readily undergoes resolution by reason of its comparative exemption from violence? If the latter view is correct, it follows that the limb is to be made a pendent member.

by the persistent use of the axillary or ischiatic crutch at the earliest recognition of the disease. In some cases, an early diagnosis may be facilitated by the following simple method: Let the patient sit on a table with the legs hanging and the knees separated; in this position, swinging the leg laterally is possible only with rotation of the femur; and if one leg oscillates in a less arc than the other, it induces or confirms a suspicion of the integrity of the joint.

He did not believe in treating abscesses and sinuses excepting indirectly through the general and local management of the bone disease in which they have their origin.

DR. GIBNEY was in favor of securing absolute immobilization, but sometimes he would rather have less perfect immobilization, if by so doing he could secure a change of air and climate, with the consequent improvement in the general nutrition. Ordinary hip disease is managed satisfactorily by the portable traction splint, with or without the rack and pinion; and he had been agreeably surprised with the facility with which these patients ran around in the tenement houses. They come to his clinic only every three or four weeks for adjustment of the apparatus; and during these intervals engage in the most active sports; they certainly do not lie in bed in dark rooms and die of pyæmia. It is unsafe to put these children in an appliance like a cuirass or the portable bed, unless one is certain of being able to see and attend to them at short intervals. It had been his lot to see cases in which he had been unable at times to obtain proper coöperation on the part of the patient's family. He had often seen abscesses burrowing up to the spinal column and down to the knee; and such cases seemed to baffle even attempts at surgical interference. We must be guided a good deal by circumstances, and if we can protect the hips from trauma and give the patient the benefit of out-door exercise, abscesses will generally be insignificant. He believed in correcting the deformity speedily, if necessary by dividing tendons and bone under an anæsthetic; for by so doing we save much time and lose nothing.

In regard to aspirating the joint over-distended with fluid, it was almost impossible to diagnosticate an over-distended hip-joint. The position of the limb does not depend on the quantity of fluid in the joint, but it is due to reflex spasm, and the efforts made by the child and nature to secure fixation.

DR. J. H. GIRDNER described an experiment on the cadaver in which great force was applied without separating the surfaces of the hip-joint. He also cited a case in which it had been necessary to keep the hand applied to the face for nine weeks in the course of a plastic operation on the nose. At the end of this time, there was no limitation in the motions of the elbow and the wrist.

DR. KETCH believed that hip disease is so often characterized by exacerbations that all attempts at a division into stages are of no practical value. He thought that the hip splint could be often of use for the reduction of deformities even in those periods when the patient is confined to his bed. In general, he believed it was a great mistake to make use of any apparatus which can be entirely left to the care of the patient or family for long periods. The explanation of the relief of pain by compression of muscles was to be found in an involun-

tary action on the part of the patient which secures fixation and traction at the same time.

DR. BERG, speaking from the standpoint of the general practitioner, who frequently saw children in the very beginning of hip disease, related the histories of three cases which had presented the symptoms of early hip-joint disease and yet recovered perfectly after rest in bed for a few weeks. He now insisted on all such patients remaining in bed for several weeks before commencing any other treatment.

DR. PHELPS, in closing the discussion, said that many cases in tenement houses, whether treated by the long traction splint or by the portable bed, are deplorably neglected; but this does not argue against the use of either apparatus; it simply illustrated one of the difficulties with which all practitioners have to contend. He valued the portable bed because he desired immobilization of the affected joint, and this could not be obtained with splints having joints in them, and not including the trunk. He could relieve his patients better in bed during the period of deformity, and so adopted this method of treatment. He had seen patients in England who had been in bed several years, and were still in excellent health. He did not, however, advocate prolonged bed treatment. Believing that the cases in question are inoculations of the bacillus tuberculosis on a previously inflamed surface, and not instances of constitutional tuberculosis, he explained the frequency of tubercular joint disease in the lower extremity, by the statement that the joints of the lower extremities being more subjected to traumatic inflammation, furnish good ground in which the bacillus of tuberculosis could more readily reproduce itself.

He had presented his honest convictions, and hoped to report his cases later in such a way that others could disprove his statements, or he could substantiate his views.

THIRD CONGRESS OF THE GERMAN SOCIETY OF GYNECOLOGY.

Held at Freiburg, June 12, 13, and 14, 1889.

(Specially reported for THE MEDICAL NEWS.)

(Concluded from page 190.)

ABSCESS OF THE PELVIS.

DR. WIEDOW said that in extra-peritoneal abscesses, one always meets with fluctuation which is not found in abscesses of the peritoneal cavity. From a clinical point of view, these patients have fever, and a fever with remissions as in pyæmia; they are anæmic, and suffer alternatively from constipation or diarrhoea. The abscess may burst and evacuate itself into the peritoneum, and prove rapidly fatal. The opening of such abscesses externally is generally followed by fistulæ. He thought these abscesses ought to be operated upon as soon as the diagnosis is made. Three kinds of abscess exist: the subcutaneous and submucous abscesses, the deep abscesses, and the fistulous abscesses. In the first class of abscesses, an incision followed by drainage is the only procedure required. The deep abscesses which can be easily reached, can be opened directly and drained by the vagina, such as an abscess of the peritoneal cavity. If we have to deal with a deep abscess that cannot be reached by the ischio-rectal fossa, or if situated

near the rectum, he thought it more advantageous to make, according to Hegar's method, a plastic resection of the sacrum. The skin is first incised in a V shape, then the sacrum is freed from its attachments and sawed through to the peritoneum of the posterior surface; this flap is then lifted and one can easily reach the abscess, which can be drained and easily irrigated; on a level with the Fallopian ligament, the peritoneum must be detached before the abscess is emptied.

DR. ELISCHER had observed on several occasions, that when abscesses of the pelvis were not opened early an amyloid degeneration of the kidneys followed; hence, he believed these abscesses ought to be evacuated as early as convenient.

DR. HIRSCHBERG, of Frankfort-on-the-Main, in a case of tumor of the pelvis which could not be reached by the vagina, made an examination of the patient under chloroform and found a fluctuating tumor; the tumor was punctured through the rectum and about ten ounces of pus were obtained. The tumor having returned to its original form, he made a new puncture; then, by means of the polyp forceps, he introduced a drainage-tube which was left in position for two or three days, and the patient was cured.

DR. WIEDOW thought it dangerous to puncture an abscess through the rectum, as one could not know how far the upper wall of the abscess reaches, and pus could be introduced in this manner into the peritoneal cavity.

ON THE ULTIMATE RESULTS OF EXTIRPATION OF THE UTERUS.

DR. MUNCHMEYER, of Dresden, said that at the obstetrical clinic of Dresden, from 1883 to 1889, there had been performed 110 extirpations of the uterus, of which 80 were for carcinoma and 30 for other diseases. Out of the 80 operated on for carcinoma 4 died from the immediate effect of the operation—that is, 5 per cent.; 1 died from strangulated hernia, 2 from septicæmia, and 1 from peritonitis. Out of these 80 operated upon, 10 died from a recurrence of the disease, 4 of intercurrent affections, while others have one recurrence. 41 who have been operated upon during this past year have had no return of their trouble, and in 17 women operated upon two years ago the cancer has not reappeared. Amongst this last series 3 have had no recurrence for three years, 1 for four years, and 1 for five years.

He thought it very important that the operations should be performed as early as possible. Out of the 30 other extirpations, 17 were for myomas, 5 for prolapse, 5 for severe nervous troubles, 3 for diseases of the annexes of the uterus. Most of them were operated on by the vaginal method, or supra-vaginal. The vaginal method leaves patients in a state in which they are less liable to take cold, and, on the other hand, certain women cannot resist an abdominal incision, which is due to a weak state of the cardiac function. Out of 110 extirpations of the uterus there were only 6 deaths—that is, 4.5 per cent.

DR. FREUND, of Strasburg, extirpated a carcinoma of the neck in 1878 by laparotomy, and his patient is still alive. As far as he knew, it was a unique case.

DR. LEOPOLD did not think the new methods of extirpation of the uterus so advantageous, and he did not find that in extirpation *per vaginam* that we work in the dark. Even where the vagina is very narrow, as in

virgins, it requires only two deep lateral incisions to have all we desire before us; as to the arteries, they can be felt.

DR. HEGAR said that it was not the narrowness of the vagina which had most troubled him, but the utero-sacral ligaments.

ON POST-PARTUM HEMORRHAGE.

DR. DÜHRSEN, of Berlin, said that, according to the statistics, there dies in Prussia every day a woman by hemorrhage following labor. He thought that the easiest manner to diminish the mortality was to plug the parts. The plugging is a hemostatic process; it produces uterine contractions, instead of preventing them; moreover, it acts by compression on the uterus and vagina. Plugging will succeed when massage, hot water, etc., have given no results. It acts surely in uterine inertia and brings about powerful contractions. In cases of placenta prævia direct compression arrests the blood, but this manual compression can be replaced by a plug.

DR. DOHRN, of Königsberg, had used plugging with the iodoformed gauze in a case of atony after Cæsarean section; immediately the contractions returned, and the operator was able to go on carefully with his suturing. No septicæmia need be feared if the substances which form the plug have been dipped for five minutes in boiling water. Iodoform gauze can be used in 10 or 20 per cent. strength, or, again, absorbent cotton or linen dipped in a carbolic acid solution, 3 per cent., so as to destroy all the germs which could be found in the uterus.

DR. OLSHAUSEN thought that the important part in hemorrhages occurring after labor is to diagnosticate rapidly the source of the hemorrhage, and to know whether we have to deal with a case of atony of the uterus or a tear of the neck. Hemorrhages from the neck are quite frequent, and difficult to diagnose, especially when we have placenta prævia. He was not in favor of hot water in ruptures of the neck, for by this means we remove the clot every time it is formed. As to the plugging in uterine inertia, he did not think it a very rational process, for the plug prevents the uterus from contracting. If Dührssen has had fifty-seven cases which proved successful, he also has had failures; he knew two cases which occurred in the hands of his assistants, who were quite practical men. The best means to deal with uterine inertia is by the bi-manual massage of the uterus.

DR. FEHLING was of the opinion of Dr. Olshausen, and thought that plugging of the uterus brings about an anti-physiological state, as, in the normal state, there is no cavity in the uterus.

DR. DOHRN said that in four cases of uterine inertia in which he had tried everything without success, he finally used plugging, and obtained immediate hemostasis. In a fifth case, for uterine atony during Cæsarean section, plugging brought on immediate contraction of the uterus. He was, however, of the opinion of Dr. Olshausen, and thought that the diagnosis of the seat of the hemorrhage ought first to be made.

DR. STOEPPER, of Mannheim, had for the past twenty years used bi-manual massage, with perfect success.

DR. KUSTNER said that in his region old women are in the habit of pulling on the cord, so that he often met with uterine atony and often had the opportunity to

practice plugging with iodoform gauze. He had seen, in Jena, a case of death by hemorrhage due to an aneurism seated at the placental insertion; if plugging had been resorted to, the woman would certainly not have died.

VENTRO-FIXATION OF THE UTERUS.

DR. KUSTNER thought that in retroflexion of the uterus the method of Schultze gives better results than ventro-fixation. In a case of ventro-fixation for an interstitial myoma, he produced an abortion at the third month. He had treated forty-six retroflexions by Schultze's method; in nineteen cases he had to deal with adhesive retroflexions.

DR. FROMMEL thought that ventro-fixation ought to be practised only after having tried more conservative methods.

DR. SÄNGER had operated on twelve cases of ventro-fixation; one of his operated patients is now pregnant in the sixth month; she has a few pains, and her physician keeps her in bed. In all the cases he had operated upon the uterus was movable.

DR. KUSTNER thought that the suture of the uterus to the parietes prevents the expansive movement of the uterus during pregnancy.

DR. HEGAR once did this operation at his clinic, but the uterus became detached.

The next Congress of the German Society of Gynecology will be held in Bonn, in 1891.

CORRESPONDENCE.

A WINTER VACATION TO THE WINDWARD ISLANDS.

III.

ON deck by seven o'clock in the morning, and before us lay the shore of the Island of Guadeloupe; past mighty mountain, bold headland, and cosy bay we steamed for about three hours. On the slopes of the hills and in winding valleys were wide stretches of light-green cane fields. Stately sugar mills and comfortable planters' houses were thickly scattered about. As we steamed past, the island appeared more prosperous than any we had yet seen. The French bestow more care on their West Indian possessions than the English or Danes. Large enterprises prosper. The most extensive cane sugar factory in the world, so said, is located at Besse Terre, and formed one of the chief attractions of our visit. Green cane enters at one end and is delivered at the other in the form of dry sugar in bags in about six hours. Cane is sent to the mill from long distances about the island at a great saving to the planters. A large amount of rum is manufactured at this mill. I was told that this company purchased a large share of the rum made in the Islands in addition, which is sent to France, and after undergoing a manipulation peculiar to the trade reappears in the market in the form of French brandy. The language is French exclusively. More business appeared to be going on than in any place we had yet visited. The stores were numerous and well stocked with goods of French manufacture. We visited a natural history museum very complete in its collection of the flora, fauna, mineral and cultivated products

of the island. A department of the collection that was especially attractive consisted of the native woods. Large specimens in cross and longitudinal section were shown. They were susceptible of high polish, and the grain and coloring of many of them were very beautiful.

Mr. H. left us at this place, very much to my regret. I think I had nearly pumped him dry of his abundant stock of information about the West Indies; but justice requires me to state that he was always ready to impart his well-arranged facts. I wish I had space to repeat a story of his about a voyage to Pensacola from St. Thomas in a schooner with an insane captain. It was one of the most blood-curdling stories of personal adventure I ever listened to. Here is one story at his expense that will bear telling. When he arrived at Basse Terre he found a large consignment of staves and barrel heads piled up on the landing under quite a large port-charge which had been refused by the consignee on the ground that there were no bungs sent with them. Can one imagine anything less complete in the eternal fitness of things than a barrel without a bung? But there he was, and nothing could get him out of the scrape but an equivalent number of bungs.

It was interesting to observe the marked difference in physical traits between the French negro half-breed and the English. The latter is thick-set, burly, the light-hearted look of the pure African blocked out, giving place to a surly, brutish expression. The French cross gives a breed of finer lines. The women are slender, petite, clean—a thing of pleasure and song. The men are small, lean, elastic, and altogether a better race to live with. The intermixture, in the towns at least, appears to be the rule, a pure-blood negro being the exception; while in the English Islands the reverse is true.

Our arrival at Guadeloupe was signalized by quite a rare event. The most conspicuous object as we neared land was the cone of Soufriere, a volcano nearly 5000 feet high. For the first time in six months it was without a cloud. The crater was clearly visible clad in green to the excoriated edge, beyond which we could see a vast rent, the result of the eruption of 1840, when it was last active. At that time the island suffered severely. A large volume of smoke poured out of the summit near the margin of the recent fracture, and blew out horizontally a dark streak across the sky. Soufriere was smoking her pipe, as the natives say. From the sea the mountain appears difficult of access. From the land side it is but a prominence in a central spine of mountain that lies parallel with the long axis of the island. One of the results of the last eruption was an earthquake which shook down many of the buildings at Besse Terre, and among them the cathedral. It has been rebuilt after a manner called earthquake-proof. It is constructed of iron with an outside veneer of stone. Throughout the interior huge rivets and bolt-heads may everywhere be seen covered with white paint. It may be earthquake-proof, but I doubt it.

We left in the afternoon, and as we steamed out to sea we took another look at Soufriere. She was covered with a mass of towering cloud, and was smoking her pipe after her usual manner, with her face hidden from the gaze of man in shadows and tears.

The next morning we were snugly lying tied up at a wharf at St. Lucia. It is the finest harbor in the Islands. The English Government is now transferring its naval

station from Barbadoes to Castries, as the town is named. Forts were being built, black troops drilled, steam dredges at work and coal accumulating in large mounds. Hills, terminating in sharp cones, surrounded the bay and town. The town did not appear to have any white inhabitants except the military, and was entirely without interest. We always set up the camera in the market-place of each town as a point to secure characteristic views. The market-place is generally the principal square, and unfortunately the buildings were all alike—an open shed, or a number of them, with corrugated iron roofs. There is something about iron, however it is employed architecturally, that is fatal to the picturesque. Often the groups of people were enough so to compensate for the defect in the buildings. The sales were made by women, each one squatting over a little pile of yams, coconuts, or fish, bread, or cake. The noise was deafening. They appeared to be quarrelling, but it was only a friendly dispute over prices. Cooking was always going on over little charcoal fires, the pots or frying-pans supported on a couple of stones. Charcoal is the fuel, each day's supply being bought at the market.

At sea again in the afternoon. Shortly before sundown we passed one of the most remarkable sights of the Islands. These are the Pitons of St. Lucia. Two mountains rising out of the sea at the land's edge, side by side, perpendicular, like obelisks of indescribable grandeur, 3000 feet high. No near approach of the interior mountains detracts from their proportions. A span of about 800 yards separates them, with a little bay between. The surf piled up grandly at their base. Dark gray, brown, verging into black, appeared the general color, with streaks of red and irregular patches of green where creeping plants and shrubs had found root. It appeared madness to attempt to climb them, yet it is said that four sailors from the English fleet had made the attempt. After getting up a few hundred feet one of the men lost his grip upon the rock and fell; a few hundred feet higher a second dropped, still higher a third, and the fourth man, who had nearly reached the top, seemed to grow faint and fell. No one ever knew the cause, but they were supposed to have been bitten by the *fer de lance*, that is believed to make its home in the Pitons. St. Lucia, like Martinique, is infested by this terrible serpent. It belongs to the rattlesnake family, but the latter is as harmless as a babe compared to it. Agile, powerful, quick to rage, with a disposition to attack and pursue, it is the most deadly of the serpent enemies of man.

St. Lucia is beautiful. The mountains are many of them inert volcanoes. From one ragged peak a thin line of smoke drifted across the sky. But the beauty was repellant, such as one might fancy would be that of a fallen angel. The forests were so dark and impenetrable, the mountains so fantastic, and the valleys, dark and profound, were too much like rents in the face of Nature to leave a pleasant memory. One could make studies here for illustrations to the Inferno. The sea off St. Lucia is of a blue so deep and prismatic that it is the latter quality alone that prevents its being called black rather than blue. With the gloom of St. Lucia and the blue-black of the sea, it seems like a world in mourning. It was off the Pitons that Rodney fought and won the great battle with the Count de Grasse that restored to England her possessions in the West Indies.

Our next stop was made at Barbadoes. I found but

little to interest me there. Everything appeared prosperous. Carlisle Bay was full of shipping, among them half a dozen English men-of-war. The proper thing to do when one has a day at Bridgetown is to take the little railroad fourteen miles long to Craine's Hotel, on the eastern side of the island, and look at the surf. The island lies at the outer edge of the group, and takes the full buffet of the waves of the vast middle Atlantic. The war here between sea and rock is eternal. The island had considerable interest as being the most densely populated to the square mile on earth. So densely crowded is it that the negro cannot squat on a little patch of land, but is obliged to work. Hence, Barbadoes may be said to be the only exception to the ruin that has overtaken the other Islands. Two or three days in a week is all the work to be had out of the negro throughout the Islands. Between two such deadly enemies as bad labor and beet-root, the poor sugar planter has come to grief.

Another night at sea and a glorious surprise at St. Vincent. Kingstown, with its red roofs showing through a forest of palms, lies in the embrace of its infolding hills draped in forest from shore to crest. Beyond were volcanic-shaped mountains, each with its *Tam o' Shanter* of cloud. Here were said to be craters and lakes, cold, green, and mysterious. The sides were carved into deep ravines that twisted into the dark, green depths and gave exquisite variations in color as fragments of cloud trailed their shadows after them. It would be difficult to conceive of a more exquisite picture than that of town and island from the deck. I dreaded to go ashore lest I should be disenchanted, and I was.

The chief attraction of the town is Ja-ja, an African king from the West Coast. He refused to make a treaty with the English government, and was accordingly persuaded that a voyage on a gunboat to St. Vincent, and an abode there for the rest of his life, would very materially promote his health. He has a liberal income of £1000 from government, a house to himself, horses, servants and dogs. He came off to the ship and had luncheon. The captain fired a salute and had the crew drawn up to receive him. He enjoyed the honors paid him greatly. He is very fond of Captain Hubbard, who always pays him great attention. His tribe are said to be man-eaters. His Majesty appeared very benevolent and mild, so that it was hardly possible to believe that the nice-looking, middle-aged African gentleman would eat you. I have no doubt that if the fortunes of war were to render that event possible, that he would proceed to the feast with every consideration for your feelings. He is allowed to have but one wife with him at a time, out of consideration, I suppose, for the high state of morals existing on the island; but there is a rotation in office about twice a year, which in a measure compensates. When he goes out a white police sergeant trots at his heels, who appears very much lower in the social grade than the poor savage. Surely there is a divinity that doth hedge a king.

I was surprised at the number of drug stores to be seen in the town; the same being true of all the Islands. The amount of patent medicine consumed by the colored people is enormous. To purchase a bottle of some compound costing a dollar confers quite a social distinction. I may state another thing that surprised me when I heard of it, namely, that a very extensive business in life insurance is done among these people, nearly all the great

companies in the States having agents travelling about among the Islands. They pay an extra premium here, but even then it does not appear a very safe investment, unless it is done on the theory that the insured is not expected to pay more than his first premium when he allows his policy to lapse. In fact, it is hard to understand how he would raise the money to pay more. It is not because he is such an exemplary husband and father that he so readily discounts the future, as the policies are all small endowments for short terms.

ELY VAN DE WARKER.

NEWS ITEMS.

The Annual Meeting of the Association of American Physicians will be held in the Army Medical Museum, Washington, on September 18th, 19th, and 20th, under the Presidency of Dr. Francis Minot, of Boston. The programme has just been issued and contains the following papers:

The President's Annual Address, by Francis Minot, of Boston.

The Early Stage of General Paralysis, by C. F. Folsom, of Boston.

Tetany, by James Stewart, of Montreal.

Tetany and a New Theory of its Pathology, by John T. Carpenter, of Pottsville.

Thrombosis of the Cerebral Sinuses and Veins, by A. B. Ball, of New York.

Chylous Effusions into Serous Cavities, by S. C. Busey, of Washington.

Substitutes for Opium in Chronic Diseases, by J. F. A. Adams, of Pittsfield.

Remarkable Case of Slow Pulse, by D. W. Prentiss, of Washington.

Discussion on the Relation between Chlorosis, Simple Anæmia, and Pernicious Anæmia, including Leucocythæmia and Hodgkins' Disease. Referee, Frederick P. Henry, of Philadelphia; co-referee, F. Forchheimer, of Cincinnati.

Primary Cancer of the Duodenum, by E. N. Whittier, of Boston.

Primary Cancer of the Gall-bladder and Ducts, by John H. Musser, of Philadelphia.

Gastric Neurasthenia, by G. M. Garland, of Boston.

Specimens from Two Cases of Cretinism, by W. F. Whitney, of Boston.

The Anatomical and Physiological Relations of Lesions of the Heart and Kidneys, by H. F. Formad, of Philadelphia.

The Contagium of Diphtheria, by P. Gervais Robinson, of St. Louis.

A Supplementary Inquiry into the Frequency with which Lead is Found in the Urine, by James T. Putnam, of Boston.

Discussion on the Relations of Rheumatism to Rheumatoid Arthritis. Referee, William Osler, of Baltimore; co-referee, Morris Longstreth, of Philadelphia.

How Far may a Cow be Tuberculous before the Milk becomes Dangerous as a Food Supply? By Harold C. Ernst, of Jamaica Plain.

The Bacillus Tuberculosis, by J. T. Whittaker, of Cincinnati.

Hot Air Inhalations in Tuberculosis, by E. L. Trudeau, of Saranac Lake.

On Thursday evening, September 19th, it is proposed that the Association shall have an Annual Dinner.

The Statutes of Tenth International Congress, Berlin, 1890.—The following statutes of the Tenth International Medical Congress have been announced.

Article I. The Tenth International Medical Congress will be opened on Monday the 4th of August, 1890, and closed on Saturday the 10th of August, 1890, in Berlin.

II. The Congress will consist of approved physicians who have registered as members and who have given in their card of membership.

Members will pay a registration fee of twenty marks (about \$5.00), for which they will receive a copy of the transactions of the Congress as soon as they are published. The date for the registration of members will be determined later.

III. The objects of the Congress are purely scientific.

IV. The work of the Congress will be divided into sections. When registering the members should intimate with which section they desire to associate themselves.

V. Each section will have a chairman, three vice-chairmen, an undetermined number of honorary chairmen and secretaries.

VI. Further information regarding the general sessions and the sessions of each section will be published later.

VII. The general sessions will include proceedings relating to the congress in general, and addresses and communications of general interest.

VIII. The work of the sections is being formulated.

IX. The addresses before the general session will be determined by the organizing committee.

Proposals regarding the work of the Congress should be sent in before July 1, 1890, to the organizing committee, who will determine whether such proposals be accepted or not.

X. All addresses and communications must be sent to the secretary before the close of the session. The editorial committee shall determine to what extent or in what length such articles shall be printed in the transactions.

XI. The official languages of all the sessions will be German, English and French. The statutes as well as the programmes will be printed in all three languages.

XII. The time allowed for introductory addresses in the sections will be limited to twenty minutes. Discussions will be limited to ten minutes.

XIII. The acting chairman shall have charge of their individual sections subject to the general rules.

XIV. Students of medicine and men and women who are not physicians may be invited by the chairman to seats in the audience, or permission for their admission may be secured from the chairmen.

XV. Communications or questions in the several sections should be addressed to the respective chairmen. All other communications to the general secretary.

The Prophylaxis of Tuberculosis.—The report of the Commission appointed by the Congress of Tuberculosis to investigate tuberculosis in man and animal, the dangers of using tuberculous milk and meat as food, and also the dangers of the spread of the disease by means

of infection, was read before the Academy of Medicine of Paris on the 31st of July.

The Commission was a most able one—being composed of the following: Drs. Chauveau, Butel, Cornil, Grancher, Landouzy, Lannelongue, Legroux, Leblanc, Nocard, Rosignol, Verneuil, Villemain, and Petit. The report was received and approved by Drs. Bouchard, Brouardel, Potain, and Proust, all members of the Congress on Tuberculosis. Their report is as follows:

I. Of all diseases, tuberculosis claims, both in city and country, the largest number of victims. In 1884, a year chosen at hazard, for example, there were 56,970 deaths in Paris, and of these about 15,500—over a quarter—died of tuberculosis. Pulmonary phthisis is not the only manifestation of tuberculosis, as is generally thought by the public. Physicians have discovered that many diseases may be due to tuberculosis, among others, bronchitis, colds, pleurisy, scrofula, meningitis, peritonitis, enteritis, tumors, osseous and articular lesions, cold abscesses, etc. All these may be directly caused by tuberculosis, and their ultimate prognosis is no more hopeful than that of phthisis pulmonalis.

II. Tuberculosis is a parasitic, virulent, contagious, and transmissible disease, caused by a microbe—the *bacillus of Koch*. This microbe can penetrate into the organism either through the digestive tract, by means of food, or through the lungs by means of the inspired air, or through the skin and mucous membrane by means of abrasions, punctures, wounds, or ulcerations. Certain diseases, such as measles, smallpox, chronic bronchitis, and pneumonia, and certain constitutional conditions, due to diabetes, alcoholism, syphilis, etc., greatly predispose the contraction of tuberculosis. The causes of tuberculosis being known, the precautions taken to prevent the entrance of the germs into the body are capable of preventing its propagation. We have an encouraging example in the results obtained in typhoid fever, in which the epidemics diminish in all towns where the necessary measures are taken to prevent the typhoid germ from mingling with the drinking-water.

III. The parasite of tuberculosis may be found in the milk, muscles, and blood of animals which serve as food for man (ox, cow especially, rabbit, poultry). Raw meat or underdone meat and blood being capable of containing the living germ of tuberculosis, should be prohibited. Milk, for the same reason, should only be consumed after having been boiled.

IV. Owing to the danger arising from milk, the protection of young children, who are peculiarly predisposed to the contraction of tuberculosis (over 2000 children under the age of two years dying annually of tuberculosis in Paris alone) should specially demand attention of both mothers and nurses. The ideal food for the infant is the milk of a healthy woman. The tuberculous mother must not nurse her child, but should confide it to the care of a healthy nurse, living in the country, where, under the best hygienic conditions, the risks of contagion from tuberculosis are much less than in town. The child thus brought up will have the best chance of escaping tuberculosis.

If nursing at the breast is impossible, the infant may be fed artificially upon cow's milk by means of the bottle or spoon; the milk must, however, always be boiled. Unboiled milk of asses and goats is infinitely less dangerous.

V. Owing to the dangers arising from the meat of slaughtered animals, which may preserve all the appearances of health even when tuberculous, the public has every interest in being assured that the inspection of meats, as required by the law, is being properly and generally practised. The only certain method of avoiding the danger of meat coming from tuberculous animals, is to cook it to such an extent that the interior portions are as well done as the surface. Only thoroughly roasted, boiled, or fried meat is entirely devoid of danger.

VI. On the other hand, the germ of tuberculosis may be transmitted from the human tuberculous subject to the healthy human subject, by means of the sputa, pus, dried mucous discharges, and all objects laden with tuberculous dust; it is necessary, therefore, in order to insure security from the transmission of tuberculosis, to:

1. Be known, that the sputa of phthisical subjects is the most formidable agent of transmission of tuberculosis; there is danger to the public in discharging the sputa upon the earth, carpets, hangings, curtains, napkins, handkerchiefs, clothes, and coverings.

2. Be well understood, that the use of spittoons should be imposed everywhere and by every one. These spittoons should be daily emptied into the fire and well washed with boiling water. They should never be emptied upon dust-heaps or in the garden, where they might lead to the infection of poultry, or in latrines.

3. Never sleep in the bed of a tuberculous subject; to occupy his room as little as possible; but, above all, do not allow young children to sleep there.

4. Remove from places or dwellings inhabited by tuberculous subjects all persons who may be considered as predisposed to the disease; the children born of tuberculous parents, those having had measles, smallpox, pneumonia, repeated attacks of bronchitis, or suffering from diabetes, etc.

5. Not to use articles which possibly may have been contaminated by phthisical patients (linen, bedding, clothing, articles of toilet, hangings, furniture, toys) except after thorough disinfection (high-pressure steam, boiling, sulphur vapors, or lime-washing).

6. Insure that the rooms of hotels, furnished apartments, cottages, or villas occupied by phthisical patients in watering places or winter resorts, are furnished and carpeted in such a manner as to render them capable of undergoing easy and thorough disinfection after the departure of each patient. It would be better if such rooms had neither curtains, carpets, nor hangings; but were washed with lime and the floor covered with linoleum. It is of the highest importance to the public that they should prefer the hotels in which such indispensable hygienic precautions and measures for disinfection are thoroughly carried out.

DR. DUJARDIN-BEAUMETZ, in the discussion which followed the reading of the above report, said that on the whole he approved of the report of the Commission, but he must remind them that it was a mistake to think that tuberculosis was more frequent in towns than in the country. Exactly the reverse is true. Further, some of the statements made by the Commission were purely hypothetical and unsubstantiated by facts. Contagion by means of milk is absolutely exceptional. For this to take place, it would not only be necessary for the cow to be tuberculous, but also for her to be afflicted with tuberculous

mammæ. Again, the transmission of tuberculosis by tuberculous meat had not been proven. However, we know that the microbe dies in a weakly acid solution; hence the ingestion of tuberculous meat cannot be dangerous, since the contents of the stomach are acid.

M. DUCEMBERG thought milk from a tuberculous cow most dangerous.

DR. GERMAIN SÉE remarked that the Commission stated the possibility of the microbe entering the system through the air. This assumption he regarded as false. In the light set forth by the Commission, tuberculosis would, indeed, be nothing else than a pest. Koch had demonstrated that the tubercle bacillus cannot live in the air. It can only live and reproduce itself in the organism. Regarding the use of spittoons, he agreed with the Commission. As long as the sputa is kept moist there is no danger, but when dry it is different. Regarding the infectivity of tuberculous milk, he agreed with Dujardin-Beaumetz. To carry out the views of the Commission as to the use of raw meat, he thought impossible. Were all meat cooked according to the requirements of the Commission, little of it worth eating would be left. A temperature of 320° F. is necessary for the destruction of the bacilli. Meat is not eatable after having been subjected to a temperature much over 195° F. Moreover, it has been conclusively proved that the consumption of tuberculous meat is devoid of danger.

The further discussion of the report was adjourned to the next meeting of the Academy.

Johnstown Relief.—The joint committee on Johnstown relief of the College of Physicians and the County Medical Society requests that all members of sub-committees who have not yet made complete returns, should do so at once, and also send in their collection books for final settlement. The committee desires to close its accounts not later than September 1st.

Brown-Sequard's Testicular Liquid.—DR. BROWN-SÉQUARD describes the composition of the liquid as follows: To the blood of the testicular veins, semen and juice extracted from a testicle, crushed immediately after it has been taken from a dog or guinea-pig, he adds distilled water in a quantity which never exceeds three or four times their volume. The crushing is always done after the addition of water. The liquid is then filtered through filter paper or a Pasteur filter. For each hypodermatic injection he used nearly sixteen minims of the filtered liquid.

A Premium on Fecundity.—We quote the following from the *Lancet* of August 3d:

With the view of encouraging the multiplication of the French nation, the Chamber of Deputies have adopted a proposition made by Dr. Javal, to the effect that fathers or mothers of seven children should be exempt from personal or house taxes.

Prof. Alexander B. Mott.—The Faculty of the Bellevue Hospital Medical College desire to record in their minutes an expression of deep sorrow at the death of their associate, the late Professor Alexander B. Mott. Professor Mott was one of the few remaining members of the original faculty of the college. For twenty-eight years he had given his best efforts to the institution, of which

he was one of the founders; and many thousands of alumni can bear testimony to the value of his teaching. Endeared to his colleagues by long and intimate association, his death is felt by each one as the loss of an earnest teacher, a good and a true friend.

AUSTIN FLINT,
Secretary.

August 15, 1889

NOTES AND QUERIES.

USE OF THE TESTICLES AS REINVIGORATORS.

To the Editor of THE MEDICAL NEWS.

The old saying, that "there is nothing new under the sun," is beautifully illustrated by the latest of Dr. Brown-Séquard's "discoveries." For over twenty years, to the personal knowledge of the writer, and probably for as many centuries, the Chinese have used the testicles of the sea lion for the purpose of stimulating the organs of generation in man and as a general nerve stimulant.

A great many sea lions are killed in the immediate vicinity of this place, principally for their oil; but the bristles, and penis with testicles, are sold to agents of the Chinese. The first-named are used for ornaments, but the last two articles are used by them as medicine. At times as many as one hundred and fifty are seen drying in the sun. When needed, a portion of a testicle is grated into a vessel, and an infusion is made which is administered *pro re nato*. Hoping that this may add something of value to the literature of this interesting subject, I am, respectfully yours,

J. T. McCORMAC, M.D.

MANSFIELD, COOS BAY, OREGON, August 5, 1889.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM AUGUST 13 TO AUGUST 19, 1889.

By direction of the Secretary of War, a Board of Medical Officers, to consist of: ANTHONY HEGER, Lieutenant-Colonel and Surgeon; JOHN O. SKINNER, Captain and Assistant Surgeon; and JAMES C. MERRILL, Captain and Assistant Surgeon, will assemble at the U. S. Military Academy, West Point, New York, on August 25, 1889, or as soon thereafter as practicable, to examine into the physical qualifications of the candidates for admission to the Academy.—Par. 9, S. O. 185, A. G. O., August 12, 1889.

GARDNER, WILLIAM H., Major and Surgeon (Washington Barracks).—Is hereby granted leave of absence for one month.—Par. 1, S. O. 183, Headquarters Division of the Atlantic, Governor's Island, New York City, August 13, 1889.

MATTHEWS, WASHINGTON, Surgeon.—Promoted to Surgeon, U. S. Army, with rank of Major, to take effect from the tenth day of July, 1889, vice Town, promoted.—War Department, Washington, D. C., August 14, 1889.

HAVARD, VALERY, Captain and Assistant Surgeon.—Is granted leave of absence for one month, to take effect about October 1, 1889, with permission to apply to Division Headquarters for an extension of one month.—Par. 3, S. O. 86, Department of Dakota, St. Paul, August 10, 1889.

By direction of the Secretary of War, JOSEPH Y. PORTER, Captain and Assistant Surgeon, now at Jacksonville, Florida, will, if the state of his health will permit, proceed to Jackson Barracks, Louisiana, and report to the commanding officer of that post for temporary duty, and by letter to the commanding general Division of the Atlantic.—Par. 16, S. O. 186, A. G. O., August 13, 1889.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.